TA-N9000ES

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model
Chinese Model

Photo: GOLD model

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION:
With 8 ohm loads, both channels driven, from 20 - 20,000 Hz; rated 120 watts per channel minimum RMS power, with no more than 0.03% total harmonic distortion from 250 milliwatts to rated output (USA model only).

Amplifier section

POWER OUTPUT

NORMAL mode
(4/8 ohms 20 Hz ~ 20 kHz, THD 0.013%)
Front: 115 W + 115 W
Center: 115 W
Rear: 115 W + 115 W

BTL mode (8 ohms 1 kHz, THD 0.013%)
Front: 200 W + 200 W
Center: 120 W

Speaker Nominal Impedance:
Front, Rear, and Center:
4 to 16 ohms (NORMAL)
8 to 16 ohms (BTL)

Input sensitivity
1 V ±1 dB

Frequency response
20 Hz ~ 20 kHz ±0.2 dB (at 1 W)
10 Hz ~ 100 kHz +0 –3 dB (at 1 W)

Inputs

Input Jack	Sensitivity	Impedance
REAR	1 V	45 kilohms
CENTER	1 V	45 kilohms
FRONT	1 V	45 kilohms
EXTRA 2ch	1 V	45 kilohms

General

System Pure-complementary High Power Legato Linear SEPP

Power requirements
120 V AC, 60Hz

Power consumption
4.5 A

Dimensions $17 \times 6\,^{7}/_{8} \times 17\,^{7}/_{8}$ in. (430 × 173.5 × 453 mm) including projecting parts and controls

Mass (Approx.)
52 lbs 15 oz (24 kg)

Supplied accessories
Control A1 cable (1)

Design and specifications are subject to change without notice.

5 CHANNEL POWER AMPLIFIER

MICROFILM

SONY®

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与安全有关的零部件须知

在原理图上用阴影及 ⚠ 标记来识别的零部件在安全操作上是具有关键性的。这些零部件要用本手册中所示的部件号对应的索尼零部件进行更换。

在安全操作上具有关键性的电路调整与索尼公司出版的维修手册完全一致。在更换关键零部件时或怀疑动作失常时，请进行这些调整操作。

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

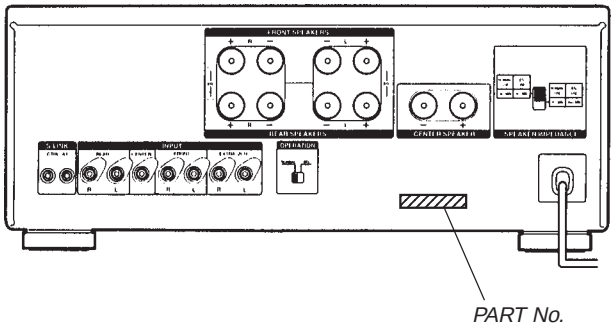
ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SECTION 1
SERVICING NOTES

MODEL IDENTIFICATION

– Rear view –



MODEL	PART No.
US, Canadian models	4-211-114-1☐
Except US, Canadian models	4-211-114-2☐

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage.
Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers.). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

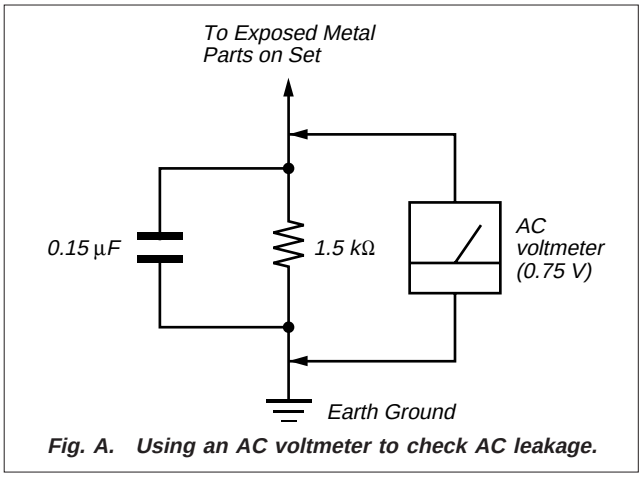
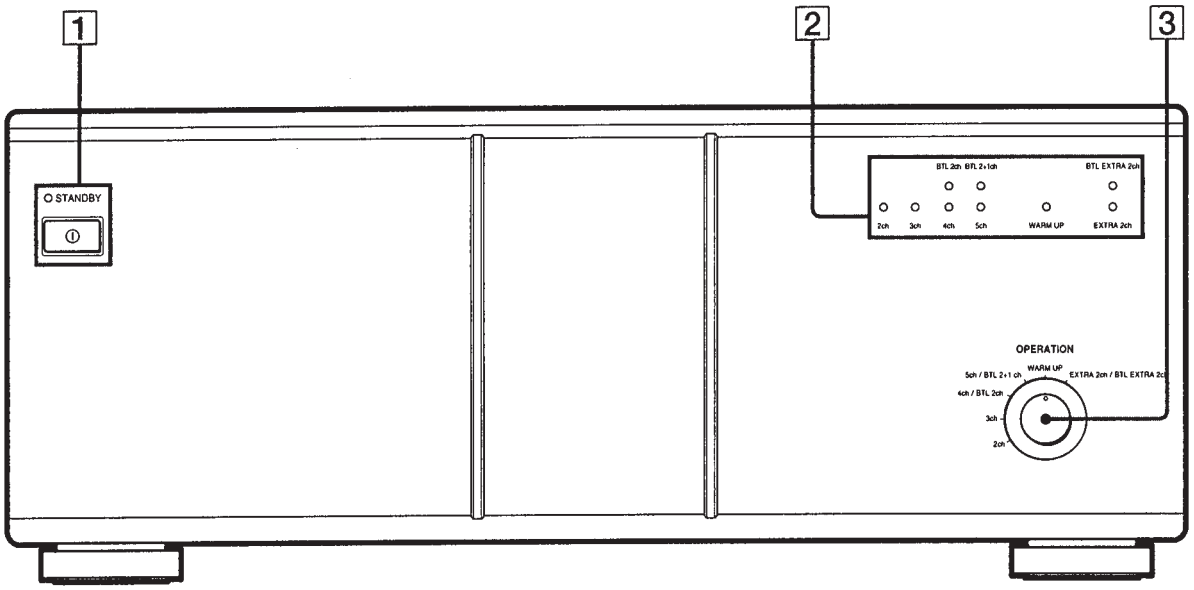


Fig. A. Using an AC voltmeter to check AC leakage.

SECTION 2
GENERAL

This section is extracted from instruction manual.



1 ⏻ switch

Press to turn the power amplifier on and off.

STANDBY indicator

Blinks momentarily after ⏻ is pressed to turn the unit on, then goes out to indicate that the unit is ready. If you make Control A1 connections between the power amplifier and the TA-E9000ES AV Control Amplifier, this indicator lights red when control amplifier is set to standby mode.

2 Operation indicators

Light to indicate the operation mode selected with the OPERATION control. Blink if you select a mode that cannot be used.

3 OPERATION control

Turn to select the channels you want to use.

When the OPERATION selector on the rear panel is set to NORMAL

Position	Output Channels
2ch	FRONT (L/R)
3ch	FRONT (L/R) + CENTER
4ch	FRONT (L/R) + REAR (L/R)
5ch	FRONT (L/R) + CENTER + REAR (L/R)
EXTRA 2ch	Signals input to the EXTRA 2ch INPUT jacks are output from the FRONT (L/R) speakers.

When the OPERATION selector on the rear panel is set to BTL

Position	Output Channels
BTL 2ch	Signals input to the FRONT or REAR INPUT jacks are output from the FRONT (L/R) BTL speaker connections.
BTL 2ch + 1ch*	Signals input to the FRONT or REAR INPUT jacks are output from the FRONT (L/R) BTL speaker connections. Signals input to the CENTER INPUT jacks are output from the CENTER SPEAKER jacks.
BTL EXTRA 2ch	Signals input to the EXTRA 2ch INPUT jacks are output from the FRONT (L/R) BTL speaker connections.

WARM UP

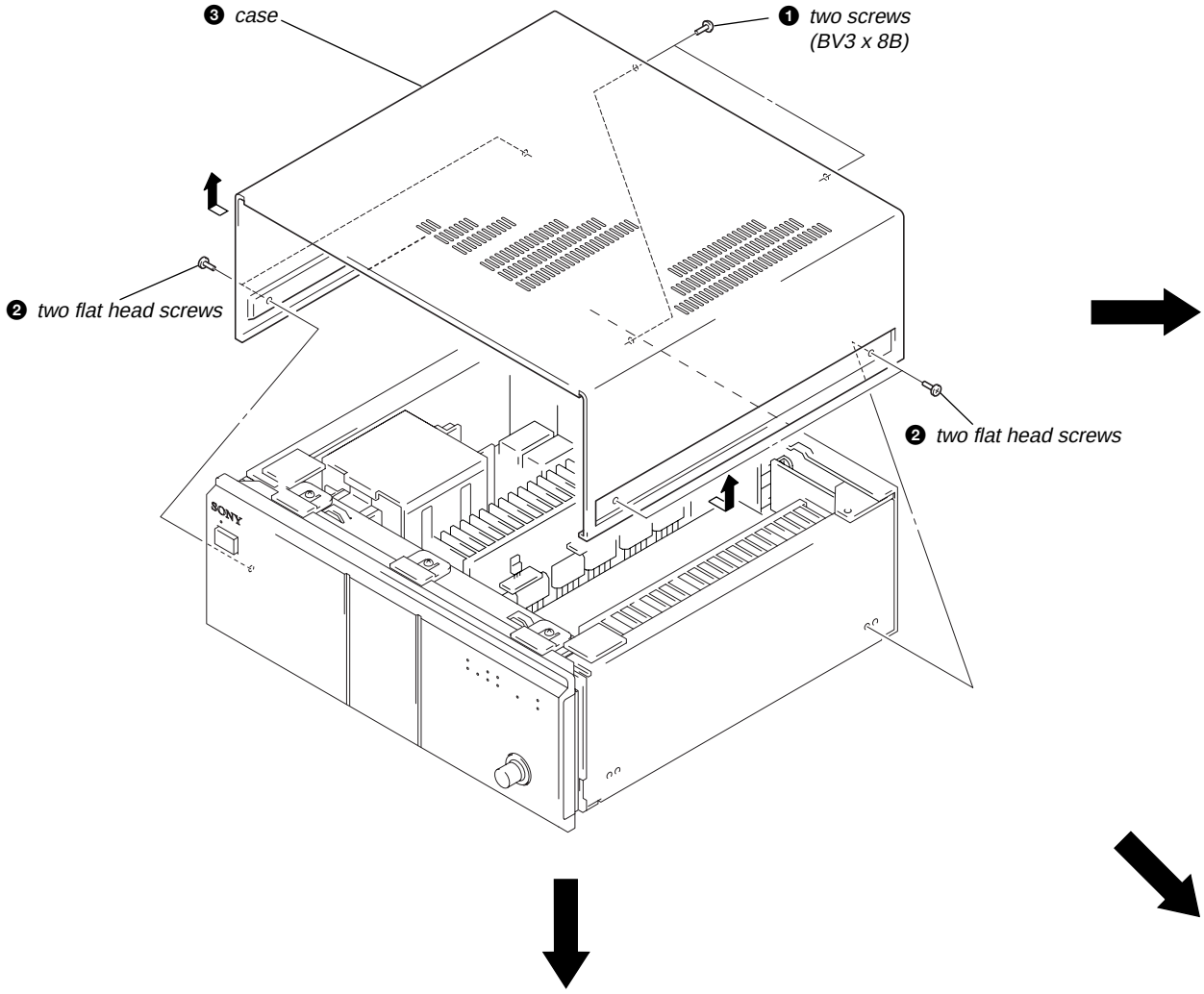
Set OPERATION to this position (instead of turning the power off) to keep the circuitry warm when the power amplifier is not being used. This enables you to enjoy excellent sound quality immediately the next time you use the power amplifier.
The warm up mode works the same during both NORMAL and BTL operation.

* *When OPERATION is in this position and a center speaker is connected, the center speaker gain level drops about 6 dB. When this happens, raise the level of the center speaker on the AV control amplifier (TA-E9000ES, etc.) connected to this amplifier and adjust the volume accordingly.*

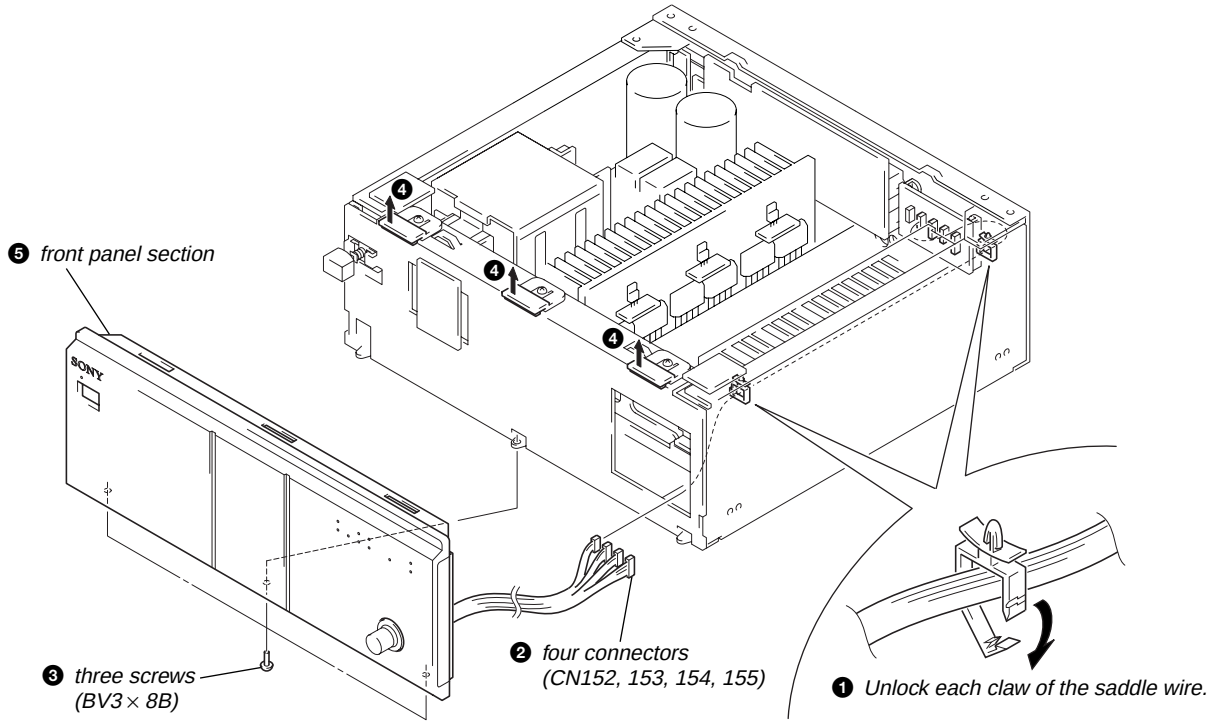
SECTION 3
DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

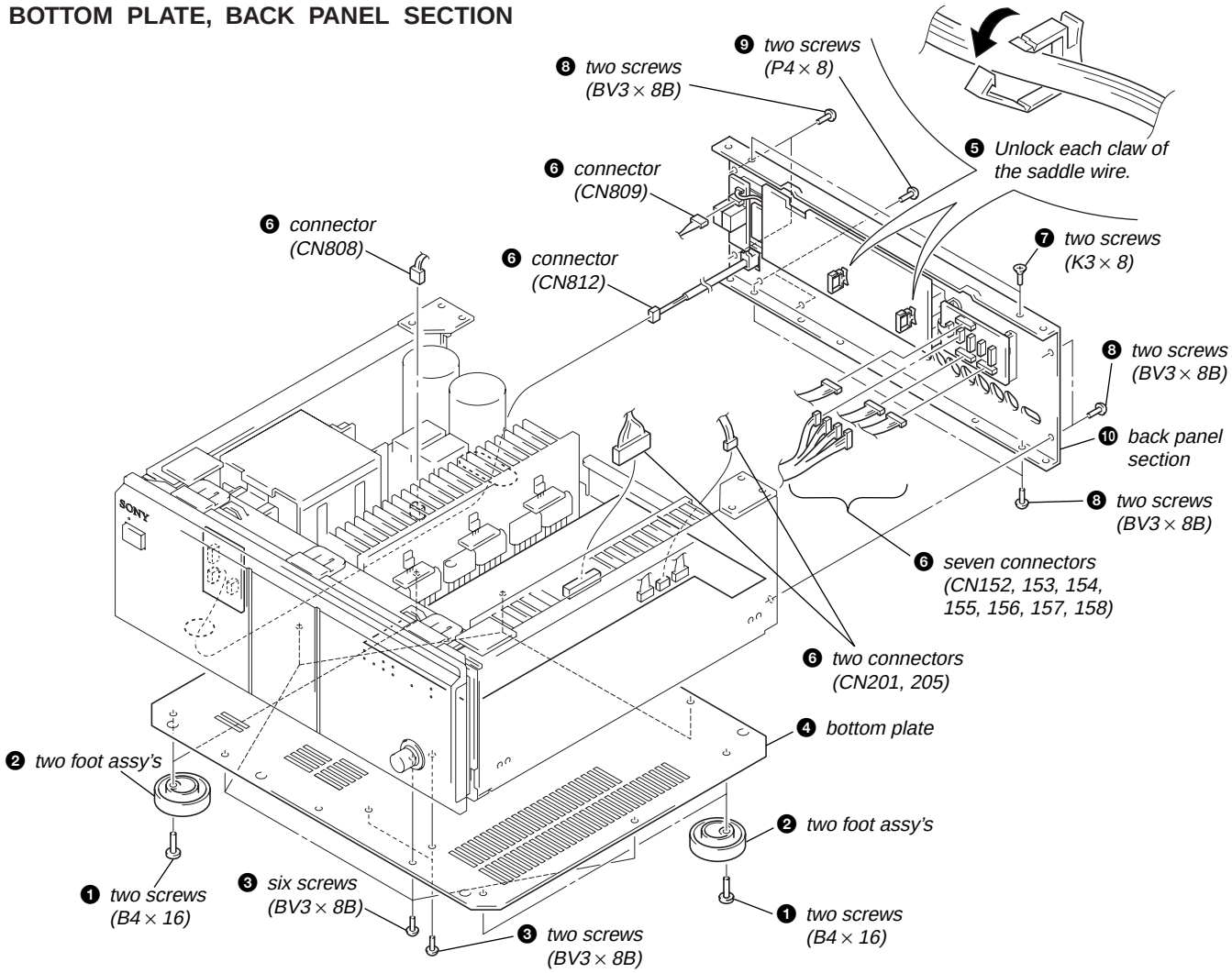
CASE



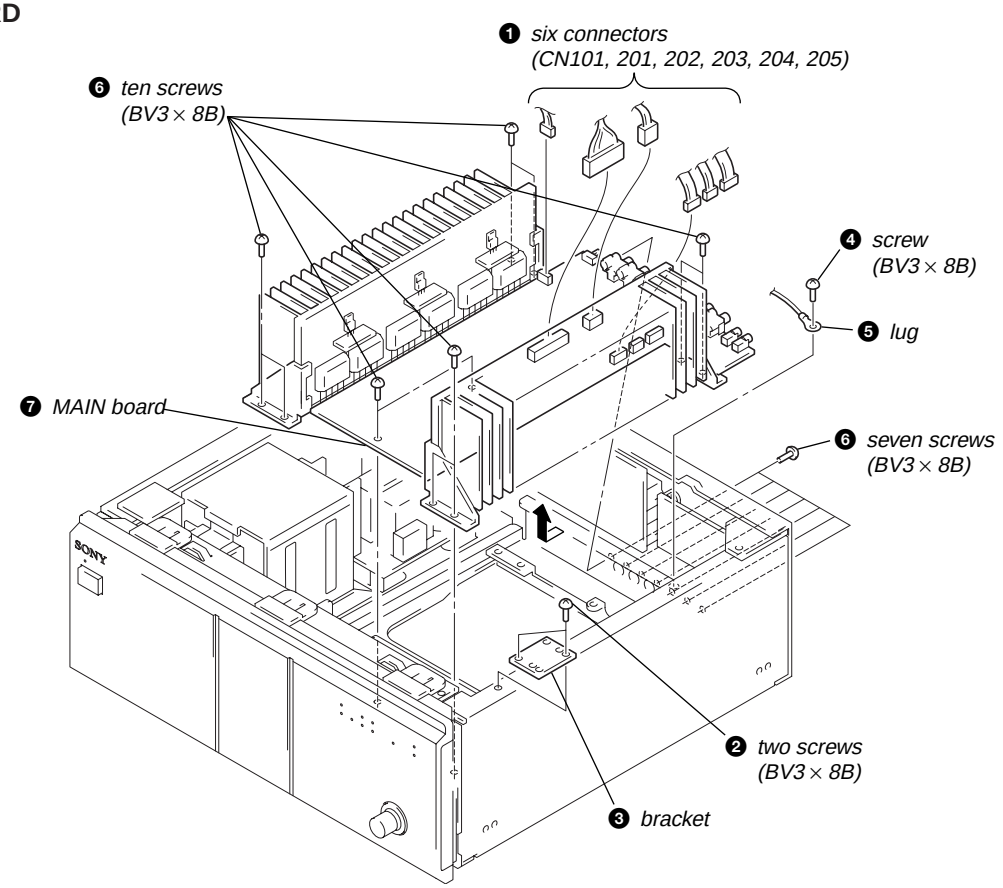
FRONT PANEL SECTION



BOTTOM PLATE, BACK PANEL SECTION


8 two screws (BV3 × 8B)
9 two screws (P4 × 8)
5 Unlock each claw of the saddle wire.
6 connector (CN809)
6 connector (CN808)
6 connector (CN812)
7 two screws (K3 × 8)
8 two screws (BV3 × 8B)
10 back panel section
8 two screws (BV3 × 8B)
6 seven connectors (CN152, 153, 154, 155, 156, 157, 158)
6 two connectors (CN201, 205)
4 bottom plate
2 two foot assy's
2 two foot assy's
1 two screws (B4 × 16)
3 six screws (BV3 × 8B)
3 two screws (BV3 × 8B)
1 two screws (B4 × 16)

MAIN BOARD


1 six connectors (CN101, 201, 202, 203, 204, 205)
6 ten screws (BV3 × 8B)
4 screw (BV3 × 8B)
5 lug
7 MAIN board
6 seven screws (BV3 × 8B)
2 two screws (BV3 × 8B)
3 bracket

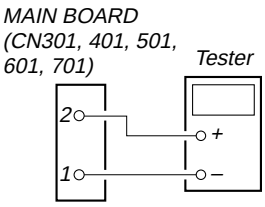
SECTION 4
ELECTRICAL ADJUSTMENTS

DC BIAS CURRENT Adjustment (with no signal input)

After replacing the power transistors, DC BIAS CURRENT adjustments should be perfomed.

Setting:
SPEAKER IMPEDANCE switch (S801): 8 Ω MIN (NORMAL USE)

Procedure:

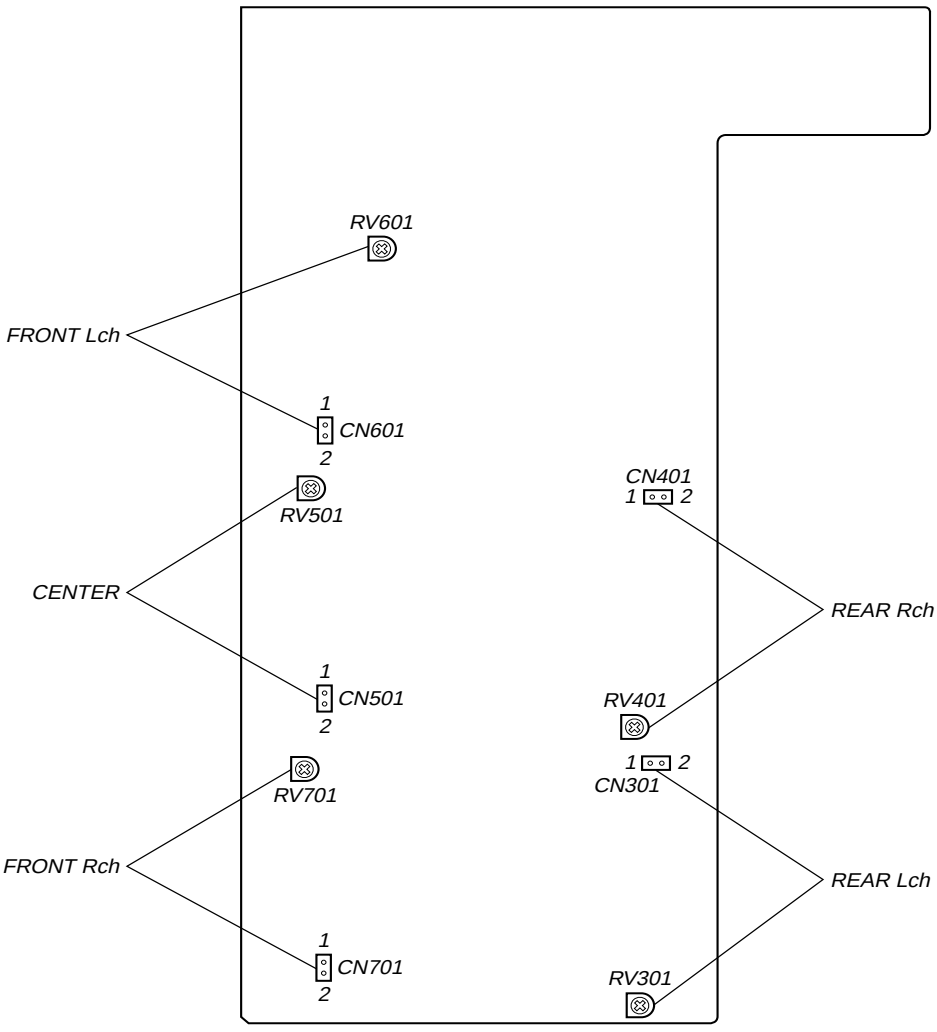


	Connecting point	Adjustment part	Reading on the tester
FRONT Lch	CN601	RV601	11 ±1 mA
FRONT Rch	CN701	RV701	11 ±1 mA
CENTER	CN501	RV501	11 ±1 mA
REAR Lch	CN301	RV301	11 ±1 mA
REAR Rch	CN401	RV401	11 ±1 mA

Note: After adjustment, check five connecting points.

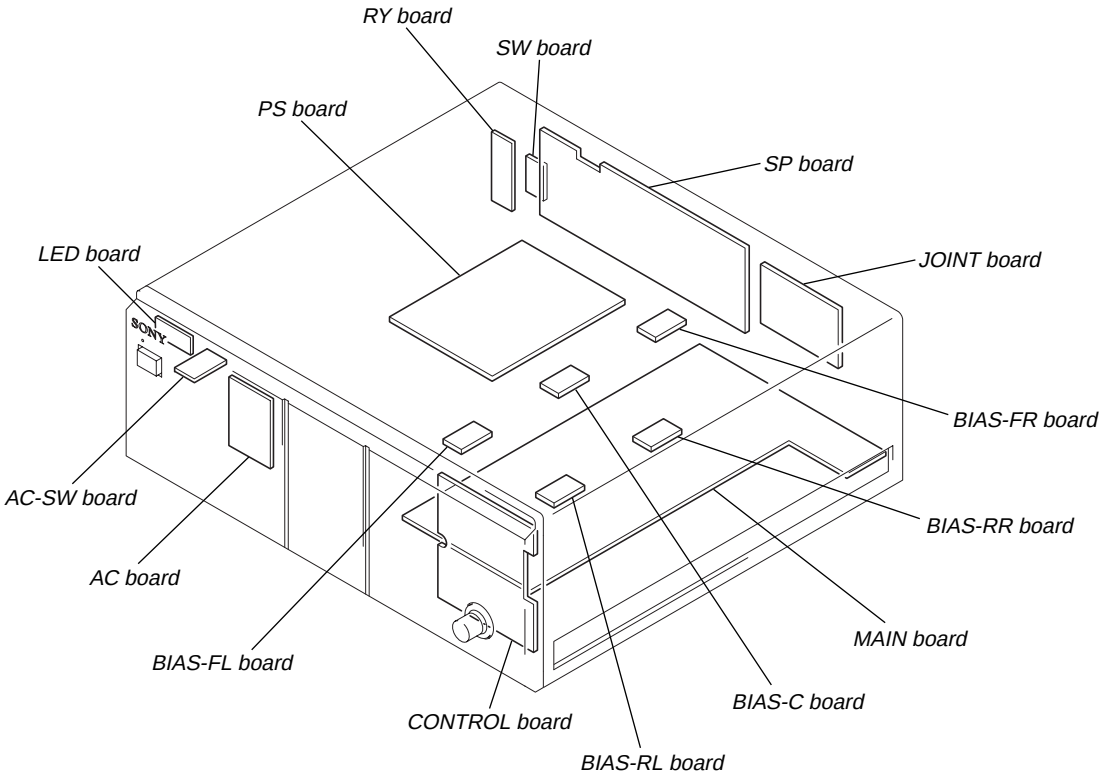
Adjustment Location:

[MAIN Board]
(Component Side)



SECTION 5
DIAGRAMS

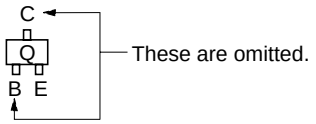
- **Circuit Boards Location**

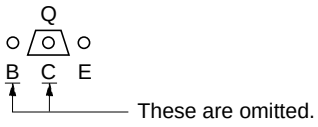


5-1. NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

Note on Printed Wiring Board:

- ⊶—— : parts extracted from the component side.
- ▒▒▒ : Pattern from the side which enables seeing.
- Indication of transistor.





Note on Schematic Diagram:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- : fusible resistor.
- : panel designation.

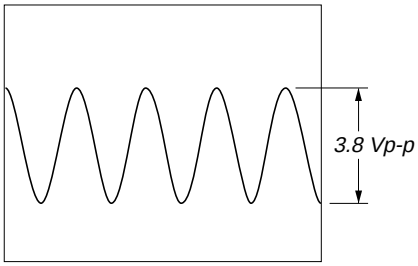
Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

以阴影和⚠标志来识别的零部件在安全方面具有关键性。因此只能以规定号码的零部件来更换。

- B+ : B+ Line.
- B– : B– Line.
- : adjustment for repair.
- Voltages and waveform are dc with respect to ground under no-signal conditions.
- Voltages and waveforms are taken with a VOM (Input impedance 10 MΩ).
  Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : AUDIO
- Abbreviation
  CND : Canadian model.

• **Waveform**

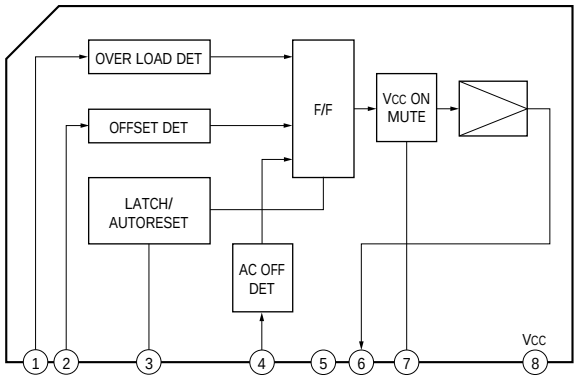
❶ IC901 ⑳ (X-OUT)



8 MHz

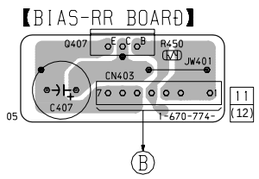
• **IC Block Diagram**
– MAIN BOARD –

IC201 µPC1237HA

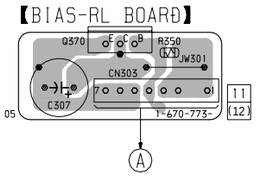


5-2. PRINTED WIRING BOARDS – MAIN Section – • See page 8 for Circuit Boards Location.

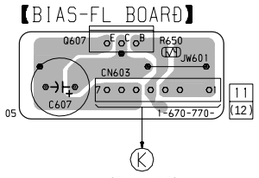
【BIAS-RR BOARD】



【BIAS-RL BOARD】

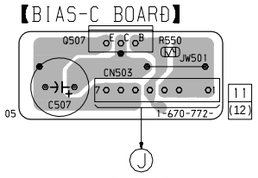


【BIAS-FL BOARD】



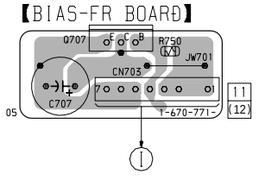
(Page 12)

【BIAS-C BOARD】



(Page 12)

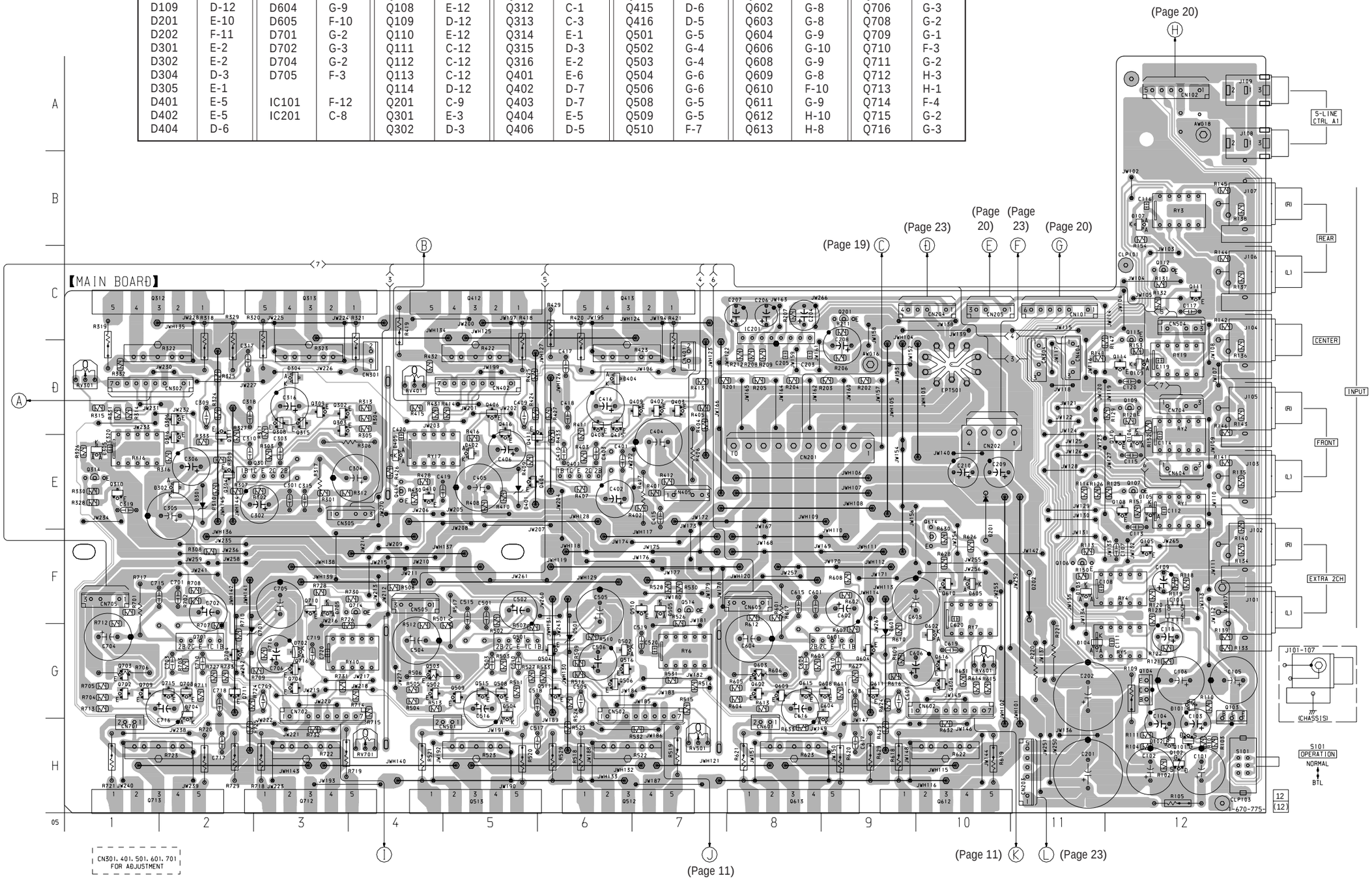
【BIAS-FR BOARD】



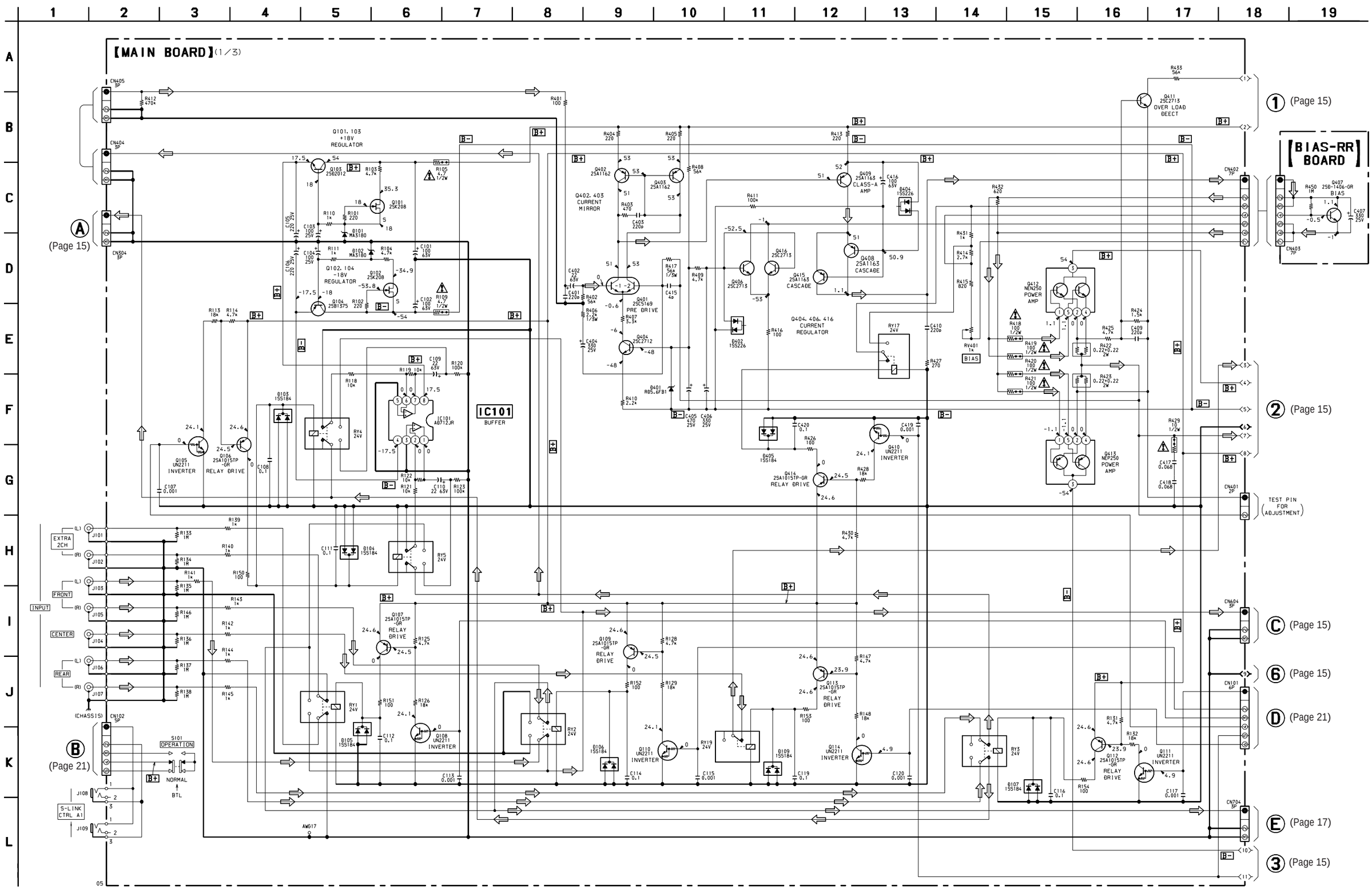
• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D101	G-12	D405	E-4	Q101	H-12	Q303	D-3	Q408	D-6	Q511	G-6	Q614	F-10
D102	H-12	D501	G-6	Q102	H-12	Q304	E-2	Q409	D-7	Q512	H-6	Q615	G-8
D103	F-11	D502	G-6	Q103	G-12	Q306	D-2	Q410	E-4	Q513	H-5	Q616	G-10
D104	G-11	D504	G-5	Q104	G-12	Q308	D-3	Q411	E-5	Q514	F-7	Q701	G-2
D105	E-12	D505	F-7	Q105	F-12	Q309	D-3	Q412	C-5	Q515	G-5	Q702	G-1
D106	E-12	D601	G-9	Q106	F-11	Q310	E-1	Q413	C-6	Q516	G-6	Q703	G-1
D107	B-12	D602	G-10	Q107	E-12	Q311	E-2	Q414	E-4	Q601	G-9	Q704	G-2
D109	D-12	D604	G-9	Q108	E-12	Q312	C-1	Q415	D-6	Q602	G-8	Q706	G-3
D201	E-10	D605	F-10	Q109	D-12	Q313	C-3	Q416	D-5	Q603	G-8	Q708	G-2
D202	F-11	D701	G-2	Q110	E-12	Q314	E-1	Q501	G-5	Q604	G-9	Q709	G-1
D301	E-2	D702	G-3	Q111	C-12	Q315	D-3	Q502	G-4	Q606	G-10	Q710	F-3
D302	E-2	D704	G-2	Q112	C-12	Q316	E-2	Q503	G-4	Q608	G-9	Q711	G-2
D304	D-3	D705	F-3	Q113	C-12	Q401	E-6	Q504	G-6	Q609	G-8	Q712	H-3
D305	E-1			Q114	D-12	Q402	D-7	Q506	G-6	Q610	F-10	Q713	H-1
D401	E-5	IC101	F-12	Q201	C-9	Q403	D-7	Q508	G-5	Q611	G-9	Q714	F-4
D402	E-5	IC201	C-8	Q301	E-3	Q404	E-5	Q509	G-5	Q612	H-10	Q715	G-2
D404	D-6			Q302	D-3	Q406	D-5	Q510	F-7	Q613	H-8	Q716	G-3

【MAIN BOARD】

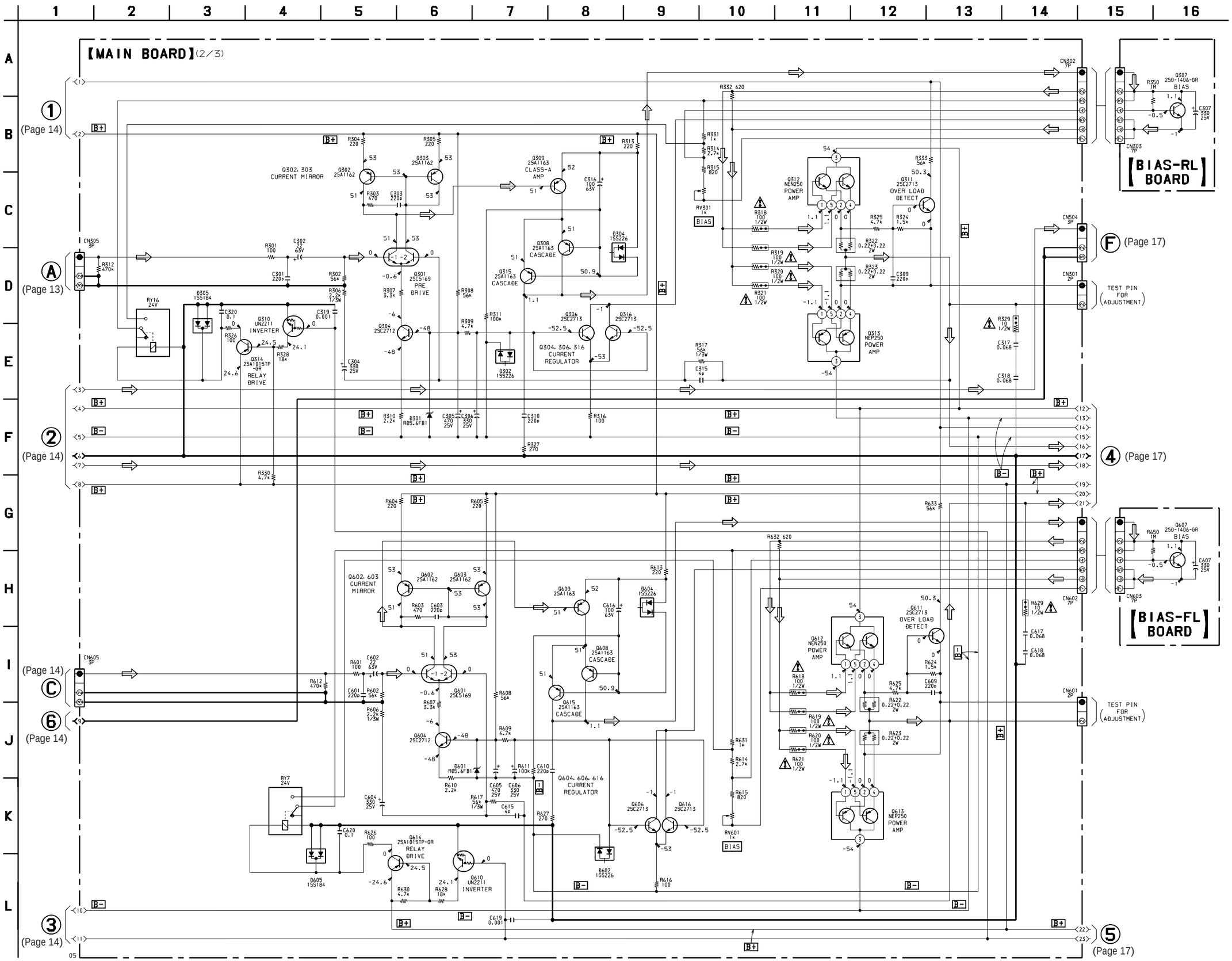


5-3. SCHEMATIC DIAGRAM – MAIN Section (1/3) –



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.	以阴影和⚠标志来识别的零部件在安全方面具有关键性。因此只能以规定号码的零部件来更换。

5-4. SCHEMATIC DIAGRAM – MAIN Section (2/3) –



以阴影和⚠标志来识别的零部件在安全方面具有关键性。因此只能以规定号码的零部件来更换。

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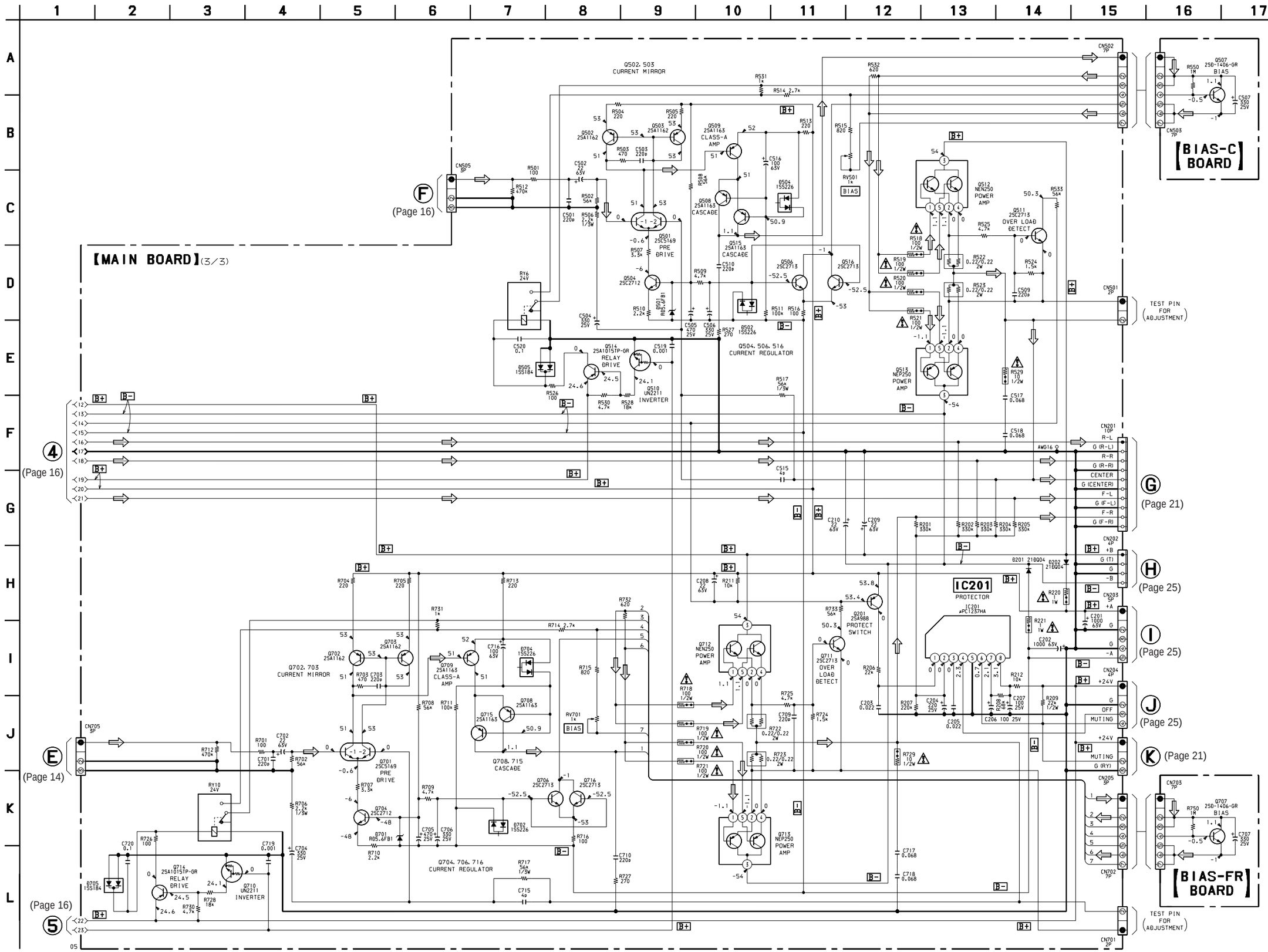
5-5. SCHEMATIC DIAGRAM – MAIN Section (3/3) – • See page 10 for IC Block Diagram.



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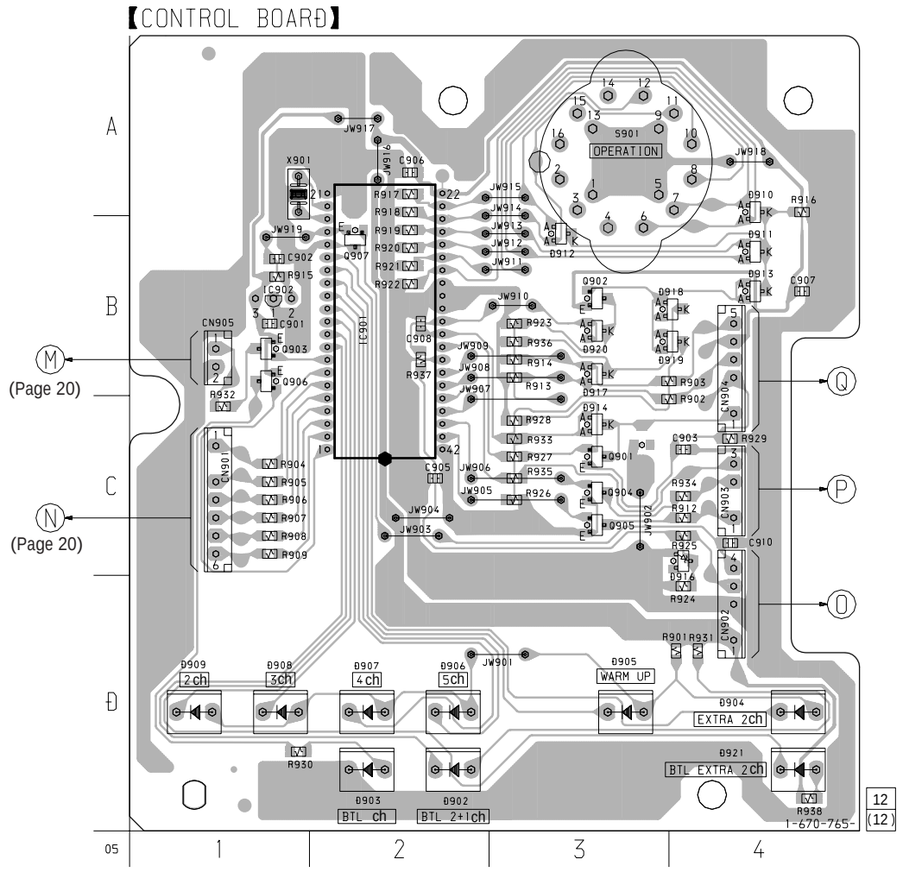
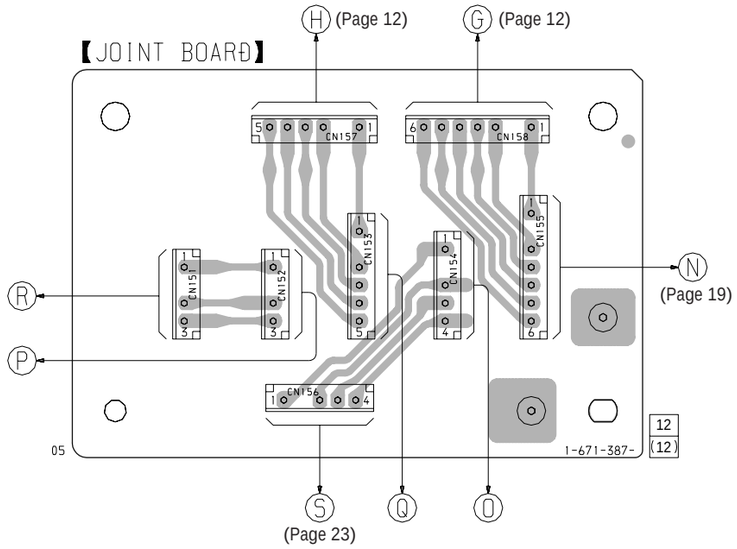
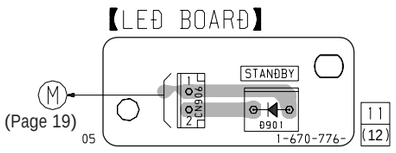
5-6. PRINTED WIRING BOARDS – CONTROL Section – • See page 8 for Circuit Boards Location.

• **Semiconductor Location**

Ref. No.	Location
D902	D-2
D903	D-2
D904	D-4
D905	D-3
D906	D-2
D907	D-2
D908	D-1
D909	D-1
D910	A-4
D911	B-4
D912	B-3
D913	B-4
D914	C-3
D916	C-4
D917	B-3
D918	B-4
D919	B-4
D920	B-3
D921	D-4
IC901	B-2
IC902	B-1
Q901	C-3
Q902	B-3
Q903	B-1
Q904	C-3
Q905	C-3
Q906	B-1
Q907	B-2

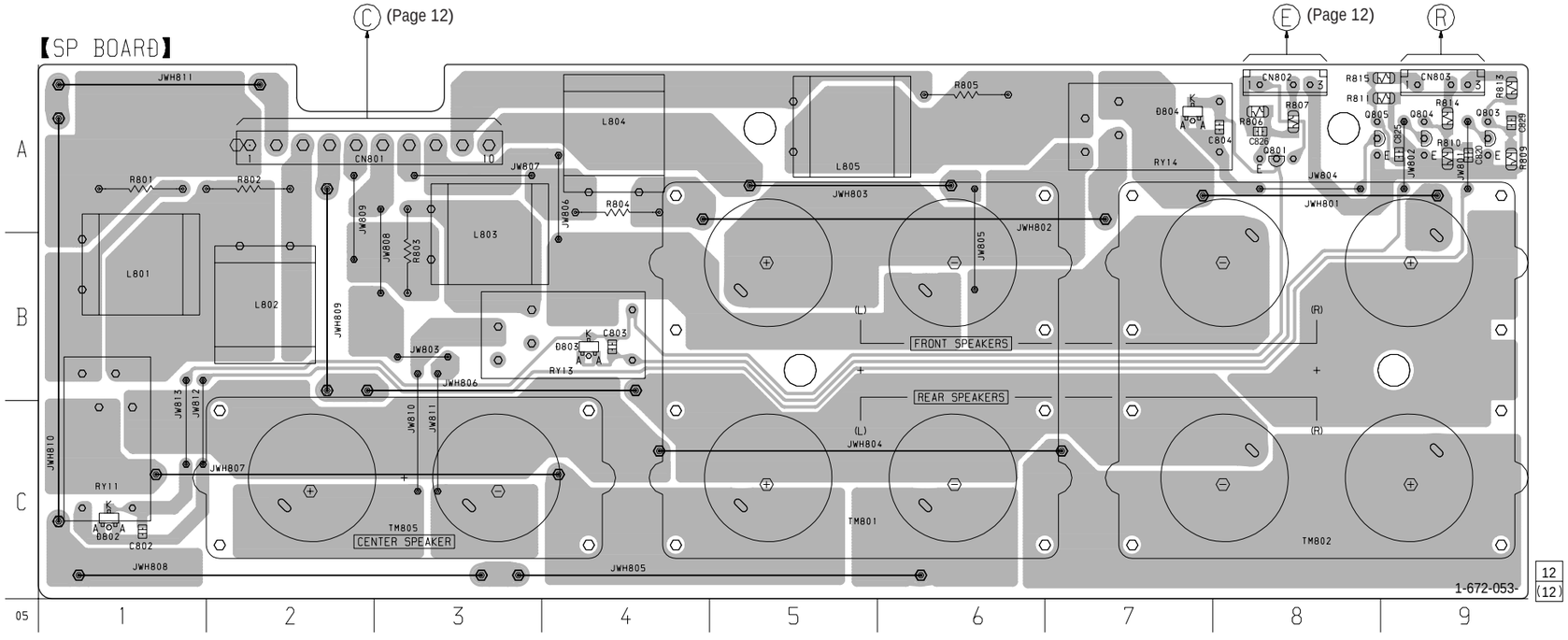




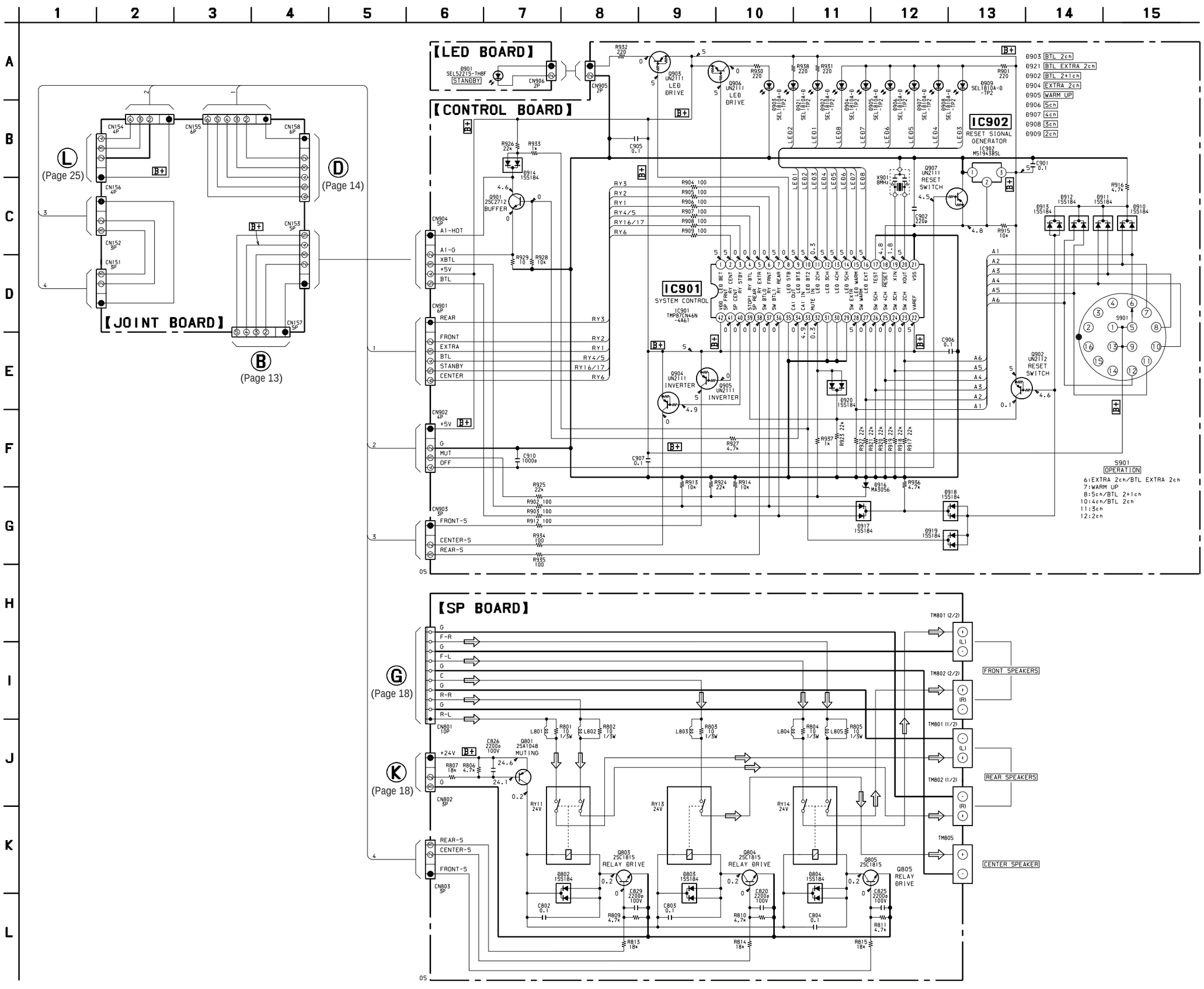


• **Semiconductor Location**

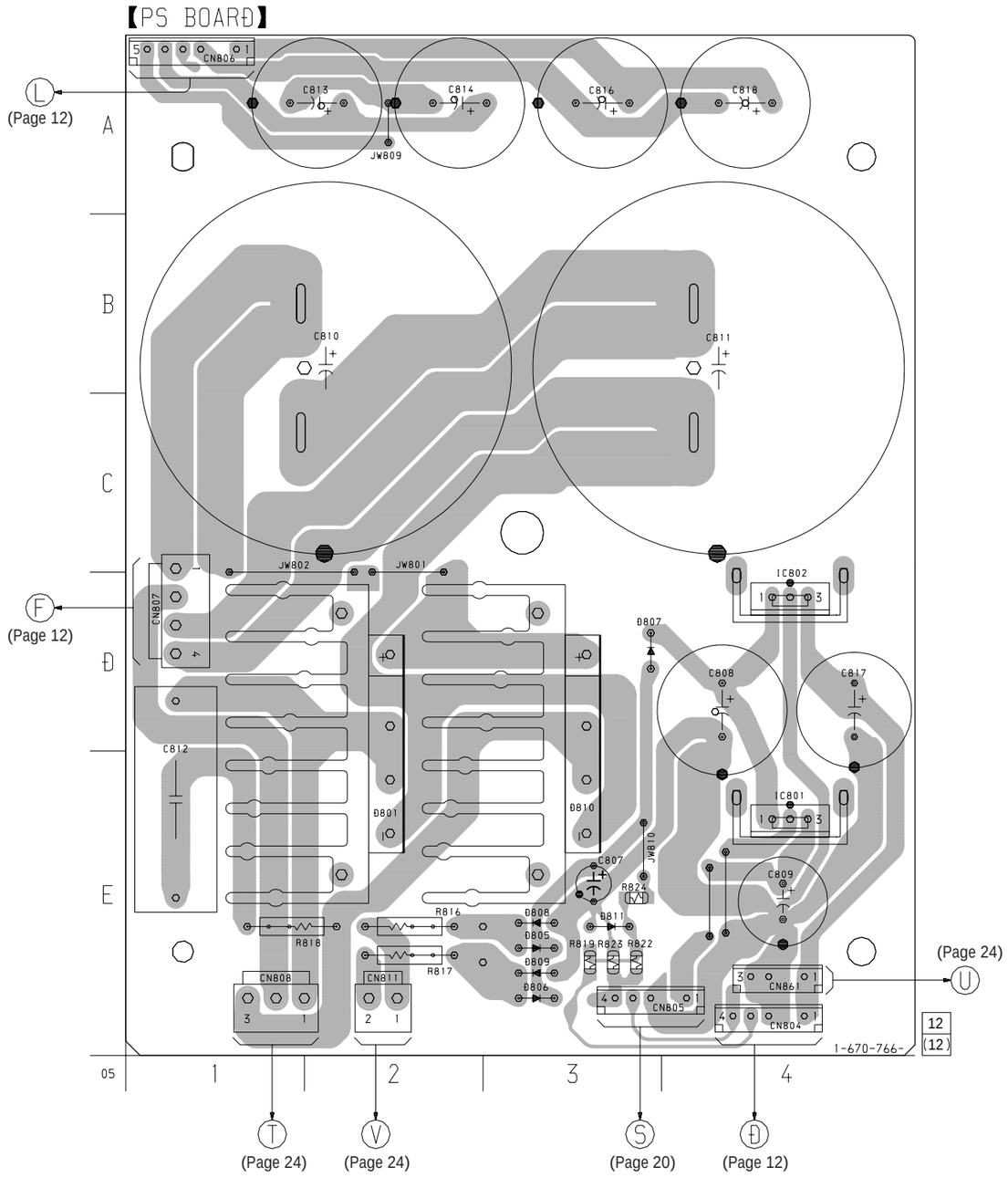
Ref. No.	Location
D802	C-1
D803	B-4
D804	A-7
Q801	A-8
Q803	A-9
Q804	A-9
Q805	A-8

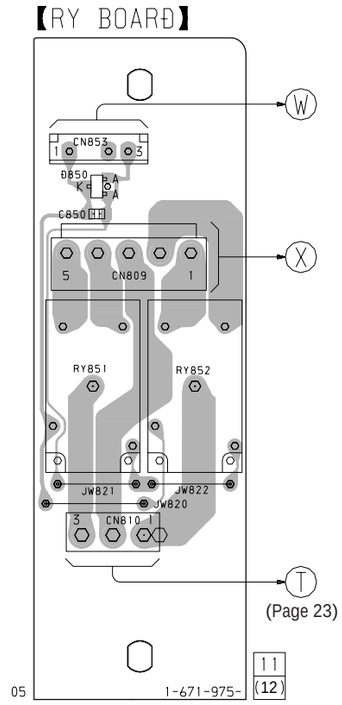


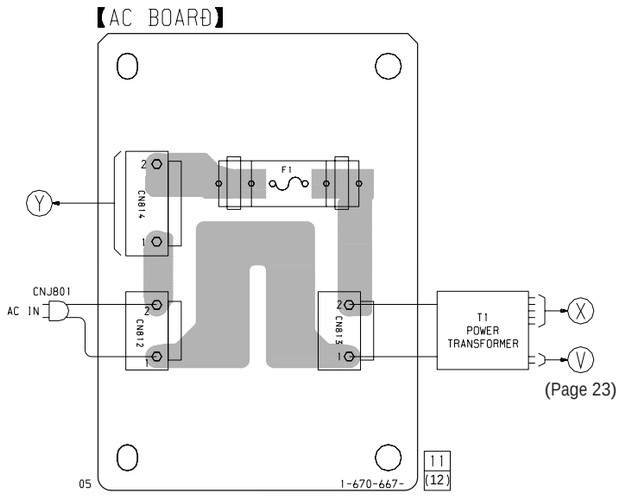
5-7. SCHEMATIC DIAGRAM – CONTROL Section – • See page 10 for Waveform.

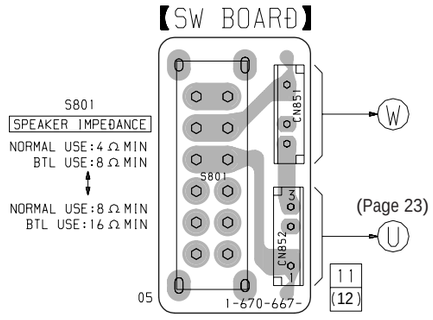


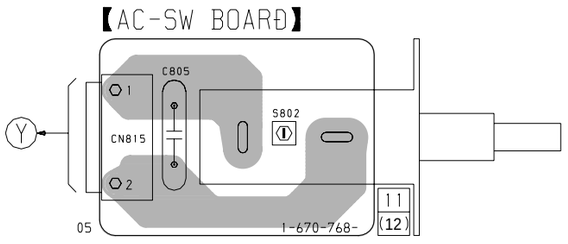
5-8. PRINTED WIRING BOARDS – POWER Section – • See page 8 for Circuit Boards Location.







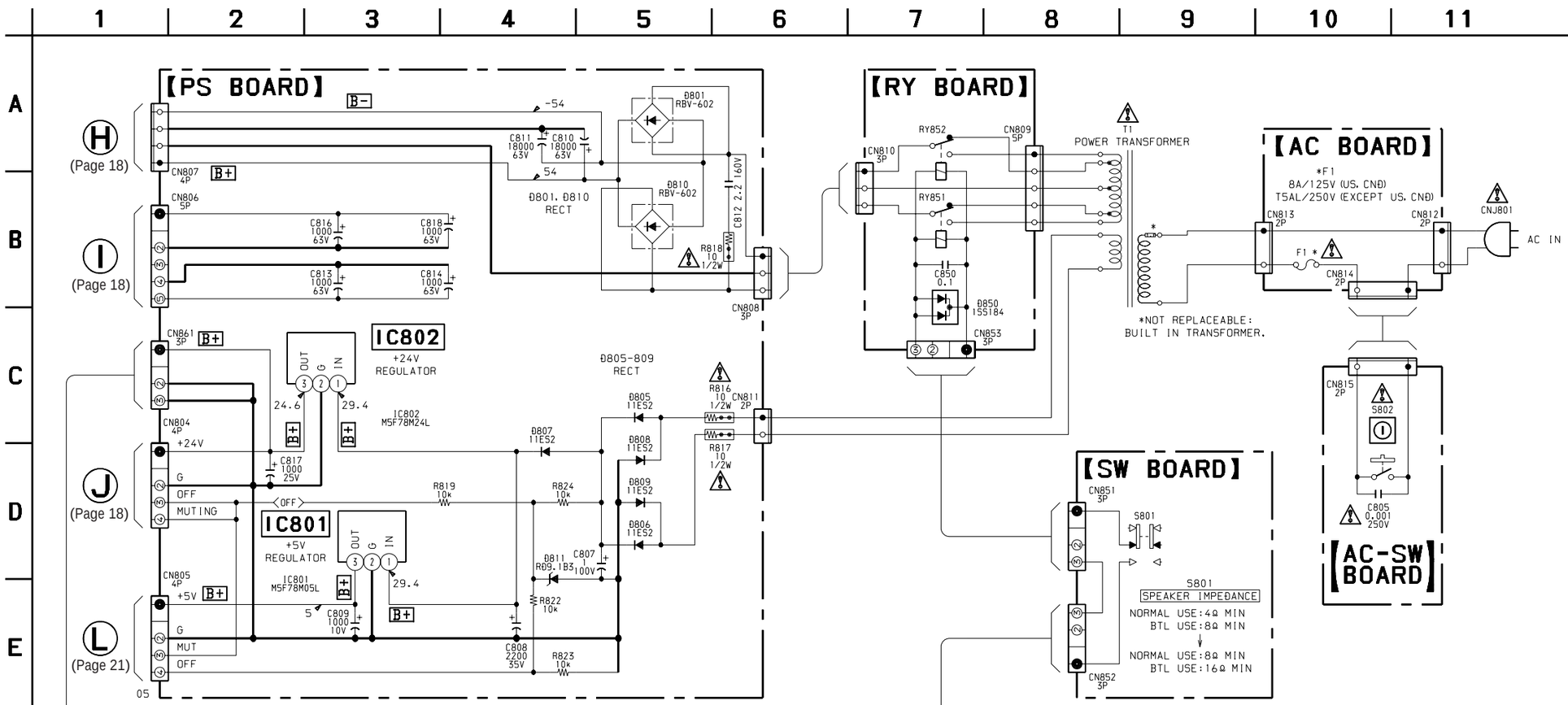




- **Semiconductor Location**

Ref. No.	Location
D801	E-2
D805	E-3
D806	E-3
D807	D-3
D808	E-3
D809	E-3
D810	E-3
D811	E-3
IC801	E-4
IC802	D-4

5-9. SCHEMATIC DIAGRAM – POWER Section –



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.	以阴影和⚠标志来识别的零部件在安全方面具有关键性。因此只能以规定号码的零部件来更换。

5-10. IC PIN FUNCTION DESCRIPTION

• CONTROL BOARD IC901 TMP87CN46N-4A61 (SYSTEM CONTROLLER)

Pin No.	Pin Name	I/O	Function
1	LED BET	O	LED drive signal output of the BTL 2ch LED (D903) "L": LED on
2	RY CENT	O	Relay drive signal output of the CENTER line input "L": CENTER on
3	RY STBY	O	Relay drive signal output of the standby on/off "H": standby mode
4	RY BTL	O	Relay drive signal output of the BTL control "L": BTL on
5	RY EXTR	O	Relay drive signal output of the EXTRA 2CH line input "L": EXTRA 2CH on
6	RY FRNT	O	Relay drive signal output of the FRONT line input "L": FRONT on
7	RY REAR	O	Relay drive signal output of the REAR line input "L": REAR on
8	LED STB	O	LED drive signal output of the STANDBY LED (D901) "L": LED on
9	LED BT3	O	LED drive signal output of the BTL 2+1ch LED (D902) "L": LED on
10	LED BT2	O	LED drive signal output of the BTL EXTRA 2ch LED (D921) "L": LED on
11	LED 2CH	O	LED drive signal output of the 2ch LED (D909) "L": LED on
12	LED 3CH	O	LED drive signal output of the 3ch LED (D908) "L": LED on
13	LED 4CH	O	LED drive signal output of the 4ch LED (D907) "L": LED on
14	LED 5CH	O	LED drive signal output of the 5ch LED (D906) "L": LED on
15	LED WARM	O	LED drive signal output of the WARM UP LED (D905) "L": LED on
16	LED EXT	O	LED drive signal output of the EXTRA 2ch LED (D904) "L": LED on
17	TEST	I	Test input terminal (fixed at "L")
18	$\overline{\text{RESET}}$	I	System reset signal input from the reset signal generator (IC902) "L": reset For several hundreds msec. after the power supply rises, "L" is input, then it changes to "H"
19	XIN	I	Main system clock input terminal (8 MHz)
20	XOUT	O	Main system clock output terminal (8 MHz)
21	VSS	—	Ground terminal
22	VAREF	I	Reference voltage (+5V) input terminal
23	SW 2CH	I	OPERATION switch (S901) input terminal "H": 2ch
24	SW 3CH	I	OPERATION switch (S901) input terminal "H": 3ch
25	SW 4CH	I	OPERATION switch (S901) input terminal "H": 4ch/BTL 2ch
26	SW 5CH	I	OPERATION switch (S901) input terminal "H": 5ch/BTL 2+1ch
27	SW WARM	I	OPERATION switch (S901) input terminal "H": WARM UP
28	SW EXTR	I	OPERATION switch (S901) input terminal "H": EXTRA 2ch/BTL EXTRA 2ch
29 to 31	—	I	Not used (fixed at "L")
32	MUTE IN	I	Muting on/off control signal input from the μPC1237HA (IC201)
33	CA1 IN	I	Sircs remote control signal input for the S-link control A1
34	CA1 OUT	O	Sircs remote control signal output for the S-link control A1
35	—	I	Not used (fixed at "L")
36	SW BTL1	I	OPERATION switch (S101) input terminal "L": BTL, "H": NORMAL
37	SW BTL0	I	OPERATION switch (S101) input terminal "L": NORMAL, "H": BTL
38	SP REAR	O	Rear speaker on/off relay drive signal output terminal (for protect) "L": relay on
39	STOP IN	I	Trigger input terminal
40	SP CENT	O	Center speaker on/off relay drive signal output terminal (for protect) "L": relay on
41	SP FRNT	O	Front speaker on/off relay drive signal output terminal (for protect) "L": relay on
42	VDD	—	Power supply terminal (+5V)

SECTION 6
EXPLODED VIEWS

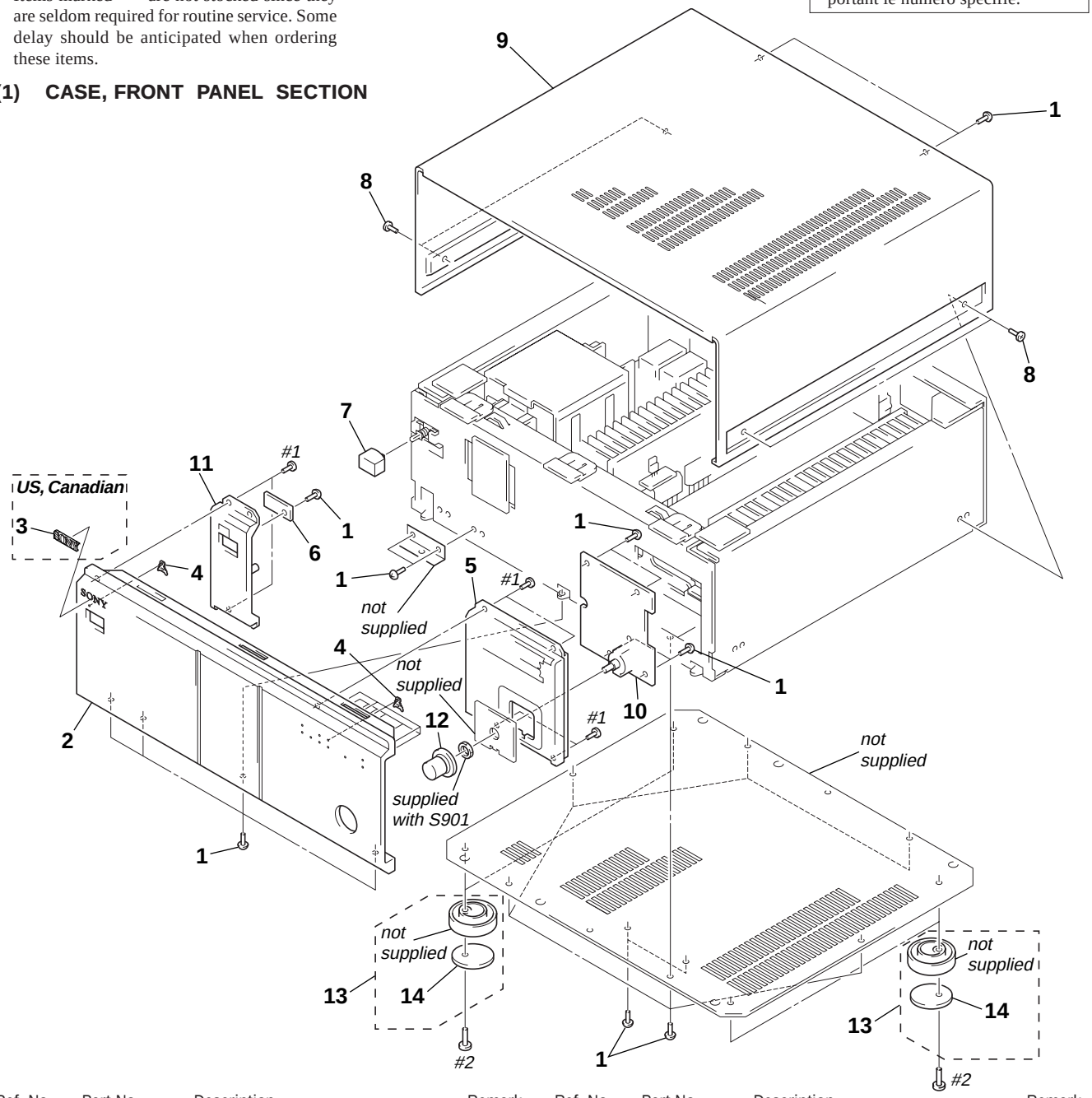
以阴影和 ⚠ 标志来识别的零部件，在安全方面具有关键性，因此只能以规定号码的零部件来更换。

NOTE:
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of the electrical parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

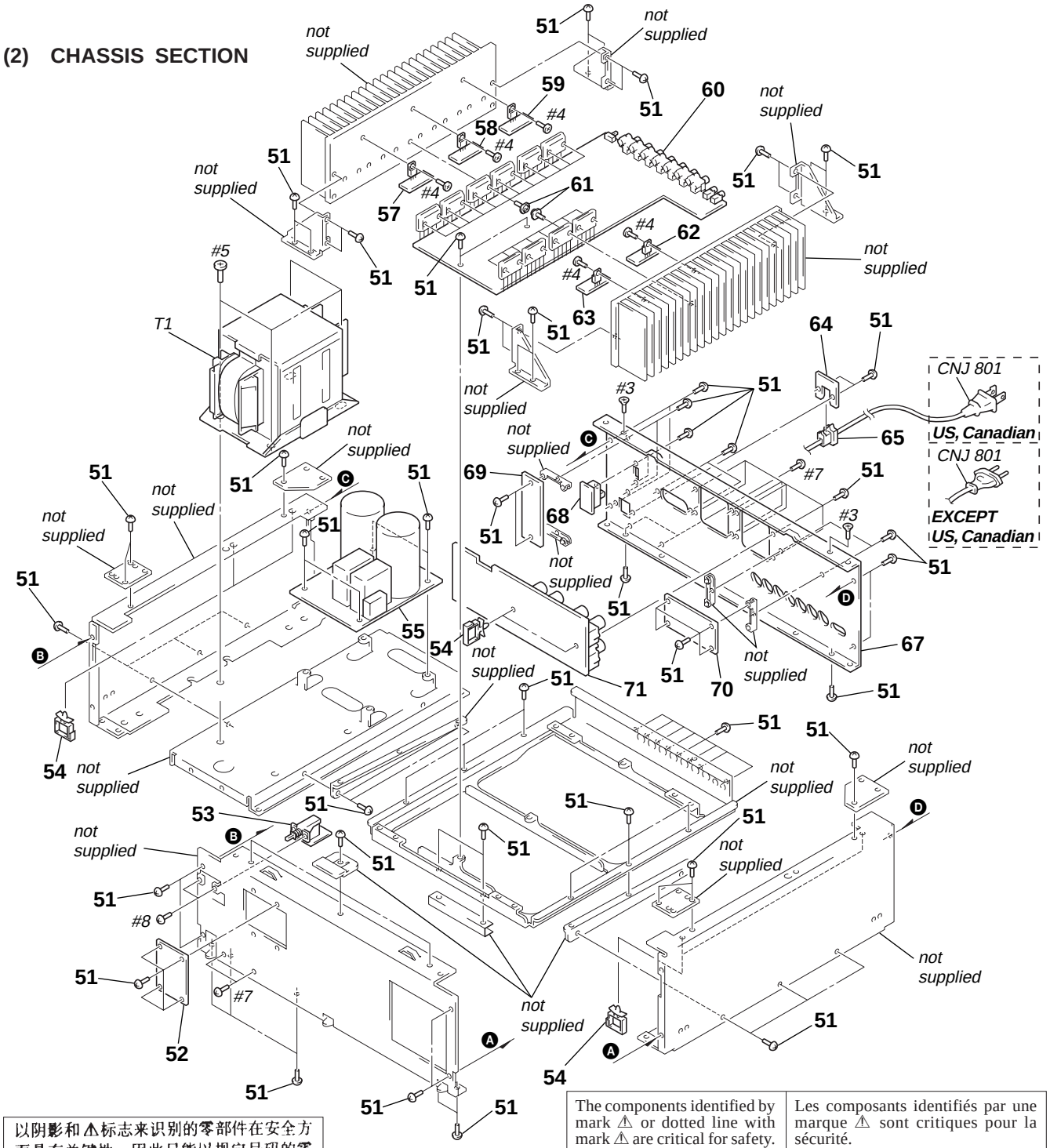
Les composants identifiés par une marque ⚠ sont critiquens pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

(1) CASE, FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
1	4-974-510-01	SCREW (+BV 3X8 B)	
2	4-211-108-01	PANEL, FRONT (GOLD) (EXCEPT US, Canadian)	
2	4-211-108-11	PANEL, FRONT (BLACK)	
2	4-211-108-21	PANEL, FRONT (GOLD) (US, Canadian)	
3	4-942-568-41	EMBLEM (NO.5), SONY (FOR BLACK)	
4	4-211-094-31	INDICATOR (6)	
5	4-211-102-01	PLATE (B), ORNAMENTAL (GOLD)	
5	4-211-102-11	PLATE (B), ORNAMENTAL (BLACK)	
* 6	1-670-776-11	LED BOARD	
7	X-4950-227-1	BUTTON ASSY, POWER (⏻) (GOLD)	
7	X-4950-228-1	BUTTON ASSY, POWER (⏻) (BLACK)	
8	4-976-827-01	SCREW, FLAT HEAD (BLACK)	
8	4-976-827-11	SCREW, FLAT HEAD (SILVER)	
* 9	4-211-110-01	CASE (GOLD)	
* 9	4-211-110-11	CASE (BLACK)	
* 10	A-4414-841-A	CONTROL BOARD, COMPLETE	
11	4-211-109-01	PLATE (A), ORNAMENTAL (GOLD)	
11	4-211-109-11	PLATE (A), ORNAMENTAL (BLACK)	
12	4-211-104-01	KNOB (DIA. 29) (GOLD)	
12	4-211-104-11	KNOB (DIA. 29) (BLACK)	
13	X-4950-540-1	FOOT ASSY	
14	4-972-889-01	CUSHION	

(2) CHASSIS SECTION



以阴影和⚠标志来识别的零部件在安全方面具有关键性。因此只能以规定号码的零部件来更换。

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
51	4-974-510-01	SCREW (+BV 3X8 B)	
* 52	1-670-767-11	AC BOARD	
* 53	1-670-768-11	AC-SW BOARD	
54	4-999-505-11	SADDLE, WIRE	
* 55	A-4414-845-A	PS BOARD, COMPLETE (US, Canadian)	
* 55	A-4414-847-A	PS BOARD, COMPLETE (EXCEPT US, Canadian)	
* 57	1-670-770-11	BIAS-FL BOARD	
* 58	1-670-770-11	BIAS-C BOARD	
* 59	1-670-770-11	BIAS-FR BOARD	
* 60	A-4414-844-A	MAIN BOARD, COMPLETE (US, Canadian)	
* 60	A-4414-846-A	MAIN BOARD, COMPLETE (EXCEPT US, Canadian)	
61	X-4943-354-1	SCREW (+B) ASSY, BARREL WASHER	
* 62	1-670-770-11	BIAS-RR BOARD	
* 63	1-670-770-11	BIAS-RL BOARD	
* 64	4-923-873-01	BRACKET, CORD STOPPER	
65	2-352-626-01	BUSHING, CORD	
* 67	4-211-114-11	PANEL, BACK (US, Canadian)	
* 67	4-211-114-21	PANEL, BACK (EXCEPT US, Canadian)	
* 68	1-670-769-11	SW BOARD	
* 69	1-671-975-11	RY BOARD	
* 70	1-671-387-11	JOINT BOARD	
* 71	A-4414-832-A	SP BOARD, COMPLETE	
⚠CNJ801	1-559-479-11	CORD, POWER (US, Canadian)	
⚠CNJ801	1-575-953-11	CORD, POWER (EXCEPT US, Canadian)	
⚠T1	1-431-981-11	TRANSFORMER, POWER (US, Canadian)	
⚠T1	1-431-983-11	TRANSFORMER, POWER (EXCEPT US, Canadian)	

AC **AC-SW** **BIAS-C** **BIAS-FL**
BIAS-FR **BIAS-RL**

SECTION 7
ELECTRICAL PARTS LIST

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Abbreviation
  CND : Canadian
- Items marked "*" are not stocked since they are seldom required for routine service.
  Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA. . : µA. . uPA. . : µPA. .
  uPB. . : µPB. . uPC. . : µPC. .
  uPD. . : µPD. .
- CAPACITORS
  uF: µF
- COILS
  uH: µH

When indicating parts by reference number, please include the board.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiquens pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

以阴影和 ⚠ 标志来识别的零部件，在安全方面具有关键性，因此只能以规定号码的零部件来更换。

Ref. No.	Part No.	Description				Remark
*	1-670-767-11	AC BOARD				
		**********				
	1-533-293-11	FUSE HOLDER				
		< CONNECTOR >				
CN812	1-564-321-00	PIN, CONNECTOR 2P				
* CN813	1-564-321-21	PIN, CONNECTOR 2P				
* CN814	1-565-792-11	PIN, CONNECTOR 2P				
		< FUSE >				
⚠F1	1-532-505-31	FUSE (T5AL/250V) (EXCEPT US, CND)				
⚠F1	1-533-311-11	FUSE, GLASS CYLINDRICAL (DIA. 5) (8A/125V) (US, CND)				
**********						
*	1-670-768-11	AC-SW BOARD				
		**********				
		< CAPACITOR >				
⚠C805	1-113-915-11	CERAMIC	0.001uF	20%	250V	
		< CONNECTOR >				
* CN815	1-565-792-11	PIN, CONNECTOR 2P				
		< SWITCH >				
⚠S802	1-554-538-00	SWITCH, PUSH (AC POWER) (1 KEY) (⏻)				
**********						
*	1-670-770-11	BIAS-C BOARD				
		**********				
		< CAPACITOR >				
C507	1-119-830-11	ELECT	330uF	20%	25V	
		< TRANSISTOR >				
Q507	8-729-231-60	TRANSISTOR 2SD1406-YGR				
		< RESISTOR >				
R550	1-260-032-11	CARBON MELF	1M	2%	1/8W	
**********						
*	1-670-770-11	BIAS-FL BOARD				
		**********				
		< CAPACITOR >				
C607	1-119-830-11	ELECT	330uF	20%	25V	
		< TRANSISTOR >				
Q607	8-729-231-60	TRANSISTOR 2SD1406-YGR				
		< RESISTOR >				
R650	1-260-032-11	CARBON MELF	1M	2%	1/8W	
**********						
*	1-670-770-11	BIAS-FR BOARD				
		**********				
		< CAPACITOR >				
C707	1-119-830-11	ELECT	330uF	20%	25V	
		< TRANSISTOR >				
Q707	8-729-231-60	TRANSISTOR 2SD1406-YGR				
		< RESISTOR >				
R750	1-260-032-11	CARBON MELF	1M	2%	1/8W	
**********						
*	1-670-770-11	BIAS-RL BOARD				
		**********				
		< CAPACITOR >				
C307	1-119-830-11	ELECT	330uF	20%	25V	
		< TRANSISTOR >				
Q307	8-729-231-60	TRANSISTOR 2SD1406-YGR				
		< RESISTOR >				
R350	1-260-032-11	CARBON MELF	1M	2%	1/8W	
**********						

Ref. No.	Part No.	Description			Remark
*	1-670-770-11	BIAS-RR BOARD			
		**********			
		< CAPACITOR >			
C407	1-119-830-11	ELECT	330uF	20%	25V
		< TRANSISTOR >			
Q407	8-729-231-60	TRANSISTOR 2SD1406-YGR			
		< RESISTOR >			
R450	1-260-032-11	CARBON MELF	1M	2%	1/8W
**********					
*	A-4414-841-A	CONTROL BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C901	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C902	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C905	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C906	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C907	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C910	1-163-009-11	CERAMIC CHIP	1000PF	10%	50V
		< CONNECTOR >			
CN901	1-564-510-11	PLUG (MICRO CONNECTOR) 6P			
CN902	1-691-766-21	PLUG (MICRO CONNECTOR) 4P			
CN903	1-691-765-21	PLUG (MICRO CONNECTOR) 3P			
CN904	1-564-506-11	PLUG (MICRO CONNECTOR) 5P			
CN905	1-564-505-11	PLUG, CONNECTOR 2P			
		< DIODE >			
D902	8-719-303-31	LED SEL1810A-D-TP2 (BTL 2+1ch)			
D903	8-719-303-31	LED SEL1810A-D-TP2 (BTL 2ch)			
D904	8-719-303-31	LED SEL1810A-D-TP2 (EXTRA 2ch)			
D905	8-719-303-31	LED SEL1810A-D-TP2 (WARM UP)			
D906	8-719-303-31	LED SEL1810A-D-TP2 (5ch)			
D907	8-719-303-31	LED SEL1810A-D-TP2 (4ch)			
D908	8-719-303-31	LED SEL1810A-D-TP2 (3ch)			
D909	8-719-303-31	LED SEL1810A-D-TP2 (2ch)			
D910	8-719-801-78	DIODE 1SS184			
D911	8-719-801-78	DIODE 1SS184			
D912	8-719-801-78	DIODE 1SS184			
D913	8-719-801-78	DIODE 1SS184			
D914	8-719-801-78	DIODE 1SS184			
D916	8-719-400-46	DIODE MA3056-L			
D917	8-719-801-78	DIODE 1SS184			
D918	8-719-801-78	DIODE 1SS184			
D919	8-719-801-78	DIODE 1SS184			
D920	8-719-801-78	DIODE 1SS184			
D921	8-719-303-31	LED SEL1810A-D-TP2 (BTL EXTRA 2ch)			
		< IC >			
IC901	8-759-563-03	IC TMP87CN46N-4A61			
IC902	8-759-635-63	IC M51943BSL			

Ref. No.	Part No.	Description			Remark
		< TRANSISTOR >			
Q901	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q902	8-729-424-12	TRANSISTOR UN2112			
Q903	8-729-424-08	TRANSISTOR UN2111			
Q904	8-729-424-08	TRANSISTOR UN2111			
Q905	8-729-424-08	TRANSISTOR UN2111			
Q906	8-729-424-08	TRANSISTOR UN2111			
Q907	8-729-424-08	TRANSISTOR UN2111			
		< RESISTOR >			
R901	1-216-037-00	METAL CHIP	330	5%	1/10W
R902	1-216-025-00	RES,CHIP	100	5%	1/10W
R903	1-216-025-00	RES,CHIP	100	5%	1/10W
R904	1-216-025-00	RES,CHIP	100	5%	1/10W
R905	1-216-025-00	RES,CHIP	100	5%	1/10W
R906	1-216-025-00	RES,CHIP	100	5%	1/10W
R907	1-216-025-00	RES,CHIP	100	5%	1/10W
R908	1-216-025-00	RES,CHIP	100	5%	1/10W
R909	1-216-025-00	RES,CHIP	100	5%	1/10W
R912	1-216-025-00	RES,CHIP	100	5%	1/10W
R913	1-216-073-00	METAL CHIP	10K	5%	1/10W
R914	1-216-073-00	METAL CHIP	10K	5%	1/10W
R915	1-216-073-00	METAL CHIP	10K	5%	1/10W
R916	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R917	1-216-081-00	METAL CHIP	22K	5%	1/10W
R918	1-216-081-00	METAL CHIP	22K	5%	1/10W
R919	1-216-081-00	METAL CHIP	22K	5%	1/10W
R920	1-216-081-00	METAL CHIP	22K	5%	1/10W
R921	1-216-081-00	METAL CHIP	22K	5%	1/10W
R922	1-216-081-00	METAL CHIP	22K	5%	1/10W
R923	1-216-081-00	METAL CHIP	22K	5%	1/10W
R924	1-216-081-00	METAL CHIP	22K	5%	1/10W
R925	1-216-081-00	METAL CHIP	22K	5%	1/10W
R926	1-216-081-00	METAL CHIP	22K	5%	1/10W
R927	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R928	1-216-073-00	METAL CHIP	10K	5%	1/10W
R929	1-216-001-00	METAL CHIP	10	5%	1/10W
R930	1-216-037-00	METAL CHIP	330	5%	1/10W
R931	1-216-037-00	METAL CHIP	330	5%	1/10W
R932	1-216-037-00	METAL CHIP	330	5%	1/10W
R933	1-216-049-11	RES,CHIP	1K	5%	1/10W
R934	1-216-025-00	RES,CHIP	100	5%	1/10W
R935	1-216-025-00	RES,CHIP	100	5%	1/10W
R936	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R937	1-216-049-11	RES,CHIP	1K	5%	1/10W
R938	1-216-037-00	METAL CHIP	330	5%	1/10W
		< SWITCH >			
S901	1-771-470-11	SWITCH, ROTARY (OPERATION)			
		< VIBRATOR >			
X901	1-579-952-21	VIBRATOR, CERAMIC (8MHz)			
**********					

JOINT **LED** **MAIN**

Ref. No.	Part No.	Description				Remark
*	1-671-387-11	JOINT BOARD				
		**********				
		< CONNECTOR >				
CN151	1-691-765-31	PLUG (MICRO CONNECTOR) 3P				
CN152	1-691-765-21	PLUG (MICRO CONNECTOR) 3P				
CN153	1-564-506-11	PLUG (MICRO CONNECTOR) 5P				
CN154	1-691-766-21	PLUG (MICRO CONNECTOR) 4P				
CN155	1-564-510-11	PLUG (MICRO CONNECTOR) 6P				
CN156	1-691-766-11	PLUG (MICRO CONNECTOR) 4P				
CN157	1-691-767-11	PLUG (MICRO CONNECTOR) 5P				
CN158	1-564-510-11	PLUG (MICRO CONNECTOR) 6P				
**********						
*	1-670-776-11	LED BOARD				
		**********				
		< CONNECTOR >				
CN906	1-564-505-11	PLUG, CONNECTOR 2P				
		< DIODE >				
D901	8-719-046-46	LED SEL5221S-TH8F (STANDBY)				
**********						
*	A-4414-844-A	MAIN BOARD, COMPLETE (US, CND)				
*	A-4414-846-A	MAIN BOARD, COMPLETE (EXCEPT US, CND)				
		**********				
		< CAPACITOR >				
C101	1-119-837-11	ELECT	100uF	20%	63V	
C102	1-119-837-11	ELECT	100uF	20%	63V	
C103	1-119-800-11	ELECT	100uF	20%	25V	
C104	1-119-800-11	ELECT	100uF	20%	25V	
C105	1-119-801-21	ELECT	220uF	20%	25V	
C106	1-119-801-21	ELECT	220uF	20%	25V	
C107	1-136-250-11	FILM	0.001uF	5%	100V	
C108	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V	
C109	1-119-834-11	ELECT	22uF	20%	63V	
C110	1-119-834-11	ELECT	22uF	20%	63V	
C111	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V	
C112	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V	
C113	1-136-250-11	FILM	0.001uF	5%	100V	
C114	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V	
C115	1-136-250-11	FILM	0.001uF	5%	100V	
C116	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V	
C117	1-136-250-11	FILM	0.001uF	5%	100V	
C119	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V	
C120	1-136-250-11	FILM	0.001uF	5%	100V	
C201	1-119-841-11	ELECT	1000uF	20%	63V	
C202	1-119-841-11	ELECT	1000uF	20%	63V	
C203	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V	
C204	1-126-024-11	ELECT	220uF	20%	25V	
C205	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V	
C206	1-126-023-11	ELECT	100uF	20%	25V	
C207	1-126-023-11	ELECT	100uF	20%	25V	
C208	1-119-834-11	ELECT	22uF	20%	63V	
C209	1-119-834-11	ELECT	22uF	20%	63V	
C210	1-119-834-11	ELECT	22uF	20%	63V	
C301	1-125-850-21	FILM	220PF	5%	50V	
C302	1-119-834-11	ELECT	22uF	20%	63V	
C303	1-125-850-21	FILM	220PF	5%	50V	
C304	1-119-830-11	ELECT	330uF	20%	50V	
C305	1-119-803-11	ELECT	470uF	20%	25V	
C306	1-119-830-11	ELECT	330uF	20%	25V	
C309	1-102-978-00	CERAMIC	220PF	5%	50V	
C310	1-125-850-21	FILM	220PF	5%	50V	
C315	1-125-842-11	FILM	4PF	10%	50V	
C316	1-119-837-11	ELECT	100uF	20%	63V	
C317	1-137-375-11	FILM	0.068uF	5%	50V	
C318	1-137-375-11	FILM	0.068uF	5%	50V	
C319	1-136-250-11	FILM	0.001uF	5%	100V	
C320	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V	
C401	1-125-850-21	FILM	220PF	5%	50V	
C402	1-119-834-11	ELECT	22uF	20%	63V	
C403	1-125-850-21	FILM	220PF	5%	50V	
C404	1-119-830-11	ELECT	330uF	20%	50V	
C405	1-119-803-11	ELECT	470uF	20%	25V	
C406	1-119-830-11	ELECT	330uF	20%	25V	
C409	1-102-978-00	CERAMIC	220PF	5%	50V	
C410	1-125-850-21	FILM	220PF	5%	50V	
C415	1-125-842-11	FILM	4PF	10%	50V	
C416	1-119-837-11	ELECT	100uF	20%	63V	
C417	1-137-375-11	FILM	0.068uF	5%	50V	
C418	1-137-375-11	FILM	0.068uF	5%	50V	
C419	1-136-250-11	FILM	0.001uF	5%	100V	
C420	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V	
C501	1-125-850-21	FILM	220PF	5%	50V	
C502	1-119-834-11	ELECT	22uF	20%	63V	
C503	1-125-850-21	FILM	220PF	5%	50V	
C504	1-119-830-11	ELECT	330uF	20%	50V	
C505	1-119-803-11	ELECT	470uF	20%	25V	
C506	1-119-830-11	ELECT	330uF	20%	25V	
C509	1-102-978-00	CERAMIC	220PF	5%	50V	
C510	1-125-850-21	FILM	220PF	5%	50V	
C515	1-125-842-11	FILM	4PF	10%	50V	
C516	1-119-837-11	ELECT	100uF	20%	63V	
C517	1-137-375-11	FILM	0.068uF	5%	50V	
C518	1-137-375-11	FILM	0.068uF	5%	50V	
C519	1-136-250-11	FILM	0.001uF	5%	100V	
C520	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V	
C601	1-125-850-21	FILM	220PF	5%	50V	
C602	1-119-834-11	ELECT	22uF	20%	63V	
C603	1-125-850-21	FILM	220PF	5%	50V	
C604	1-119-830-11	ELECT	330uF	20%	50V	
C605	1-119-803-11	ELECT	470uF	20%	25V	
C606	1-119-830-11	ELECT	330uF	20%	25V	
C609	1-102-978-00	CERAMIC	220PF	5%	50V	
C610	1-125-850-21	FILM	220PF	5%	50V	
C615	1-125-842-11	FILM	4PF	10%	50V	
C616	1-119-837-11	ELECT	100uF	20%	63V	
C617	1-137-375-11	FILM	0.068uF	5%	50V	
C618	1-137-375-11	FILM	0.068uF	5%	50V	
C619	1-136-250-11	FILM	0.001uF	5%	100V	
C620	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V	
C701	1-125-850-21	FILM	220PF	5%	50V	
C702	1-119-834-11	ELECT	22uF	20%	63V	

Ref. No.	Part No.	Description			Remark
C703	1-125-850-21	FILM	220PF	5%	50V
C704	1-119-830-11	ELECT	330uF	20%	50V
C705	1-119-803-11	ELECT	470uF	20%	25V
C706	1-119-830-11	ELECT	330uF	20%	25V
C709	1-102-978-00	CERAMIC	220PF	5%	50V
C710	1-125-850-21	FILM	220PF	5%	50V
C715	1-125-842-11	FILM	4PF	10%	50V
C716	1-119-837-11	ELECT	100uF	20%	63V
C717	1-137-375-11	FILM	0.068uF	5%	50V
C718	1-137-375-11	FILM	0.068uF	5%	50V
C719	1-136-250-11	FILM	0.001uF	5%	100V
C720	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
		< CONNECTOR >			
CN101	1-564-510-11	PLUG (MICRO CONNECTOR) 6P			
CN102	1-691-767-11	PLUG (MICRO CONNECTOR) 5P			
* CN201	1-506-599-11	PIN, CONNECTOR (B10P-VH) 10P			
CN202	1-564-241-00	PIN, CONNECTOR 4P			
CN203	1-691-767-11	PLUG (MICRO CONNECTOR) 5P			
CN204	1-691-766-31	PLUG (MICRO CONNECTOR) 4P			
CN205	1-691-765-21	PLUG (MICRO CONNECTOR) 3P			
CN301	1-564-505-11	PLUG, CONNECTOR 2P			
CN302	1-691-769-11	PLUG (MICRO CONNECTOR) 7P			
CN304	1-691-765-11	PLUG (MICRO CONNECTOR) 3P			
CN305	1-691-765-11	PLUG (MICRO CONNECTOR) 3P			
CN401	1-564-505-11	PLUG, CONNECTOR 2P			
CN402	1-691-769-11	PLUG (MICRO CONNECTOR) 7P			
CN404	1-691-765-31	PLUG (MICRO CONNECTOR) 3P			
CN405	1-691-765-31	PLUG (MICRO CONNECTOR) 3P			
CN501	1-564-505-11	PLUG, CONNECTOR 2P			
CN502	1-691-769-11	PLUG (MICRO CONNECTOR) 7P			
CN504	1-691-765-11	PLUG (MICRO CONNECTOR) 3P			
CN505	1-691-765-11	PLUG (MICRO CONNECTOR) 3P			
CN601	1-564-505-11	PLUG, CONNECTOR 2P			
CN602	1-691-769-11	PLUG (MICRO CONNECTOR) 7P			
CN604	1-691-765-21	PLUG (MICRO CONNECTOR) 3P			
CN605	1-691-765-21	PLUG (MICRO CONNECTOR) 3P			
CN701	1-564-505-11	PLUG, CONNECTOR 2P			
CN702	1-691-769-11	PLUG (MICRO CONNECTOR) 7P			
CN704	1-691-765-41	PLUG (MICRO CONNECTOR) 3P			
CN705	1-691-765-41	PLUG (MICRO CONNECTOR) 3P			
		< DIODE >			
D101	8-719-402-71	DIODE MA3180L-TX			
D102	8-719-402-71	DIODE MA3180L-TX			
D103	8-719-801-78	DIODE 1SS184			
D104	8-719-801-78	DIODE 1SS184			
D105	8-719-801-78	DIODE 1SS184			
D106	8-719-801-78	DIODE 1SS184			
D107	8-719-801-78	DIODE 1SS184			
D109	8-719-801-78	DIODE 1SS184			
D201	8-719-975-85	DIODE ERB83-004			
D202	8-719-975-85	DIODE ERB83-004			
D301	8-719-118-62	DIODE RD5.6F-T7B1			
D302	8-719-800-76	DIODE 1SS226			
D304	8-719-800-76	DIODE 1SS226			
D305	8-719-801-78	DIODE 1SS184			
D401	8-719-118-62	DIODE RD5.6F-T7B1			

Ref. No.	Part No.	Description	Remark
D402	8-719-800-76	DIODE 1SS226	
D404	8-719-800-76	DIODE 1SS226	
D405	8-719-801-78	DIODE 1SS184	
D501	8-719-118-62	DIODE RD5.6F-T7B1	
D502	8-719-800-76	DIODE 1SS226	
D504	8-719-800-76	DIODE 1SS226	
D505	8-719-801-78	DIODE 1SS184	
D601	8-719-118-62	DIODE RD5.6F-T7B1	
D602	8-719-800-76	DIODE 1SS226	
D604	8-719-800-76	DIODE 1SS226	
D605	8-719-801-78	DIODE 1SS184	
D701	8-719-118-62	DIODE RD5.6F-T7B1	
D702	8-719-800-76	DIODE 1SS226	
D704	8-719-800-76	DIODE 1SS226	
D705	8-719-801-78	DIODE 1SS184	
		< IC >	
IC101	8-759-296-74	IC AD712JR-REEL	
IC201	8-759-111-68	IC uPC1237HA	
		< JACK >	
J101	1-785-144-11	JACK, PIN (INPUT, EXTRA 2CH, L)	
J102	1-785-144-21	JACK, PIN (INPUT, EXTRA 2CH, R)	
J103	1-785-144-11	JACK, PIN (INPUT, FRONT, L)	
J104	1-779-491-11	JACK, PIN 1P (INPUT, CENTER)	
J105	1-785-144-21	JACK, PIN (INPUT, FRONT, R)	
J106	1-785-144-11	JACK, PIN (INPUT, REAR, L)	
J107	1-785-144-21	JACK, PIN (INPUT, REAR, R)	
J108	1-563-330-11	JACK (S-LINK, CTRL A1)	
J109	1-563-330-11	JACK (S-LINK, CTRL A1)	
		< TRANSISTOR >	
Q101	8-729-232-69	FET 2SK208GR3	
Q102	8-729-232-69	FET 2SK208GR3	
Q103	8-729-209-15	TRANSISTOR 2SD2012	
Q104	8-729-141-83	TRANSISTOR 2SB1094-LK	
Q105	8-729-421-22	TRANSISTOR UN2211	
Q106	8-729-201-53	TRANSISTOR 2SA1015-GR	
Q107	8-729-201-53	TRANSISTOR 2SA1015-GR	
Q108	8-729-421-22	TRANSISTOR UN2211	
Q109	8-729-201-53	TRANSISTOR 2SA1015-GR	
Q110	8-729-421-22	TRANSISTOR UN2211	
Q111	8-729-421-22	TRANSISTOR UN2211	
Q112	8-729-201-53	TRANSISTOR 2SA1015-GR	
Q113	8-729-201-53	TRANSISTOR 2SA1015-GR	
Q114	8-729-421-22	TRANSISTOR UN2211	
Q201	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
Q301	8-729-045-15	TRANSISTOR 2SC5169-FG	
Q302	8-729-216-22	TRANSISTOR 2SA1162-G	
Q303	8-729-216-22	TRANSISTOR 2SA1162-G	
Q304	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q306	8-729-271-31	TRANSISTOR 2SC2713-G	
Q308	8-729-216-31	TRANSISTOR 2SA1163-G	
Q309	8-729-216-31	TRANSISTOR 2SA1163-G	
Q310	8-729-421-22	TRANSISTOR UN2211	
Q311	8-729-271-31	TRANSISTOR 2SC2713-G	
Q312	8-749-010-43	TRANSISTOR NEN250	

MAIN

Ref. No.	Part No.	Description	Remark
Q313	8-749-010-42	TRANSISTOR NEP250	
Q314	8-729-201-53	TRANSISTOR 2SA1015-GR	
Q315	8-729-216-31	TRANSISTOR 2SA1163-G	
Q316	8-729-271-31	TRANSISTOR 2SC2713-G	
Q401	8-729-045-15	TRANSISTOR 2SC5169-FG	
Q402	8-729-216-22	TRANSISTOR 2SA1162-G	
Q403	8-729-216-22	TRANSISTOR 2SA1162-G	
Q404	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q406	8-729-271-31	TRANSISTOR 2SC2713-G	
Q408	8-729-216-31	TRANSISTOR 2SA1163-G	
Q409	8-729-216-31	TRANSISTOR 2SA1163-G	
Q410	8-729-421-22	TRANSISTOR UN2211	
Q411	8-729-271-31	TRANSISTOR 2SC2713-G	
Q412	8-749-010-43	TRANSISTOR NEN250	
Q413	8-749-010-42	TRANSISTOR NEP250	
Q414	8-729-201-53	TRANSISTOR 2SA1015-GR	
Q415	8-729-216-31	TRANSISTOR 2SA1163-G	
Q416	8-729-271-31	TRANSISTOR 2SC2713-G	
Q501	8-729-045-15	TRANSISTOR 2SC5169-FG	
Q502	8-729-216-22	TRANSISTOR 2SA1162-G	
Q503	8-729-216-22	TRANSISTOR 2SA1162-G	
Q504	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q506	8-729-271-31	TRANSISTOR 2SC2713-G	
Q508	8-729-216-31	TRANSISTOR 2SA1163-G	
Q509	8-729-216-31	TRANSISTOR 2SA1163-G	
Q510	8-729-421-22	TRANSISTOR UN2211	
Q511	8-729-271-31	TRANSISTOR 2SC2713-G	
Q512	8-749-010-43	TRANSISTOR NEN250	
Q513	8-749-010-42	TRANSISTOR NEP250	
Q514	8-729-201-53	TRANSISTOR 2SA1015-GR	
Q515	8-729-216-31	TRANSISTOR 2SA1163-G	
Q516	8-729-271-31	TRANSISTOR 2SC2713-G	
Q601	8-729-045-15	TRANSISTOR 2SC5169-FG	
Q602	8-729-216-22	TRANSISTOR 2SA1162-G	
Q603	8-729-216-22	TRANSISTOR 2SA1162-G	
Q604	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q606	8-729-271-31	TRANSISTOR 2SC2713-G	
Q608	8-729-216-31	TRANSISTOR 2SA1163-G	
Q609	8-729-216-31	TRANSISTOR 2SA1163-G	
Q610	8-729-421-22	TRANSISTOR UN2211	
Q611	8-729-271-31	TRANSISTOR 2SC2713-G	
Q612	8-749-010-43	TRANSISTOR NEN250	
Q613	8-749-010-42	TRANSISTOR NEP250	
Q614	8-729-201-53	TRANSISTOR 2SA1015-GR	
Q615	8-729-216-31	TRANSISTOR 2SA1163-G	
Q616	8-729-271-31	TRANSISTOR 2SC2713-G	
Q701	8-729-045-15	TRANSISTOR 2SC5169-FG	
Q702	8-729-216-22	TRANSISTOR 2SA1162-G	
Q703	8-729-216-22	TRANSISTOR 2SA1162-G	
Q704	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q706	8-729-271-31	TRANSISTOR 2SC2713-G	
Q708	8-729-216-31	TRANSISTOR 2SA1163-G	
Q709	8-729-216-31	TRANSISTOR 2SA1163-G	
Q710	8-729-421-22	TRANSISTOR UN2211	
Q711	8-729-271-31	TRANSISTOR 2SC2713-G	
Q712	8-749-010-43	TRANSISTOR NEN250	
Q713	8-749-010-42	TRANSISTOR NEP250	
Q714	8-729-201-53	TRANSISTOR 2SA1015-GR	
Q715	8-729-216-31	TRANSISTOR 2SA1163-G	
Q716	8-729-271-31	TRANSISTOR 2SC2713-G	

< RESISTOR >

Ref. No.	Part No.	Description			Remark
R101	1-259-987-11	CARBON MELF	220	2% 1/8W	
R102	1-259-987-11	CARBON MELF	220	2% 1/8W	
R103	1-260-004-11	CARBON MELF	4.7K	2% 1/8W	
R104	1-260-004-11	CARBON MELF	4.7K	2% 1/8W	
⚠R105	1-212-950-00	FUSIBLE	4.7	5% 1/2W	F
⚠R109	1-212-950-00	FUSIBLE	4.7	5% 1/2W	F
R110	1-259-995-11	CARBON MELF	1K	2% 1/8W	
R111	1-259-995-11	CARBON MELF	1K	2% 1/8W	
R113	1-260-011-11	CARBON MELF	18K	2% 1/8W	
R114	1-260-004-11	CARBON MELF	4.7K	2% 1/8W	
R118	1-260-008-11	CARBON MELF	10K	2% 1/8W	
R119	1-260-008-11	CARBON MELF	10K	2% 1/8W	
R120	1-260-020-11	CARBON MELF	100K	2% 1/8W	
R121	1-260-008-11	CARBON MELF	10K	2% 1/8W	
R122	1-260-008-11	CARBON MELF	10K	2% 1/8W	
R123	1-260-020-11	CARBON MELF	100K	2% 1/8W	
R125	1-260-004-11	CARBON MELF	4.7K	2% 1/8W	
R126	1-260-011-11	CARBON MELF	18K	2% 1/8W	
R128	1-260-004-11	CARBON MELF	4.7K	2% 1/8W	
R129	1-260-011-11	CARBON MELF	18K	2% 1/8W	
R131	1-260-004-11	CARBON MELF	4.7K	2% 1/8W	
R132	1-260-011-11	CARBON MELF	18K	2% 1/8W	
R133	1-260-032-11	CARBON MELF	1M	2% 1/8W	
R134	1-260-032-11	CARBON MELF	1M	2% 1/8W	
R135	1-260-032-11	CARBON MELF	1M	2% 1/8W	
R136	1-260-032-11	CARBON MELF	1M	2% 1/8W	
R137	1-260-032-11	CARBON MELF	1M	2% 1/8W	
R138	1-260-032-11	CARBON MELF	1M	2% 1/8W	
R139	1-259-995-11	CARBON MELF	1K	2% 1/8W	
R140	1-259-995-11	CARBON MELF	1K	2% 1/8W	
R141	1-259-995-11	CARBON MELF	1K	2% 1/8W	
R142	1-259-995-11	CARBON MELF	1K	2% 1/8W	
R143	1-259-995-11	CARBON MELF	1K	2% 1/8W	
R144	1-259-995-11	CARBON MELF	1K	2% 1/8W	
R145	1-259-995-11	CARBON MELF	1K	2% 1/8W	
R146	1-260-032-11	CARBON MELF	1M	2% 1/8W	
R147	1-260-004-11	CARBON MELF	4.7K	2% 1/8W	
R148	1-260-011-11	CARBON MELF	18K	2% 1/8W	
R150	1-259-983-11	CARBON MELF	100	2% 1/8W	
R151	1-259-983-11	CARBON MELF	100	2% 1/8W	
R152	1-259-983-11	CARBON MELF	100	2% 1/8W	
R153	1-259-983-11	CARBON MELF	100	2% 1/8W	
R154	1-259-983-11	CARBON MELF	100	2% 1/8W	
R201	1-260-026-11	CARBON MELF	330K	2% 1/8W	
R202	1-260-026-11	CARBON MELF	330K	2% 1/8W	
R203	1-260-026-11	CARBON MELF	330K	2% 1/8W	
R204	1-260-026-11	CARBON MELF	330K	2% 1/8W	
R205	1-260-026-11	CARBON MELF	330K	2% 1/8W	
R206	1-260-012-11	CARBON MELF	22K	2% 1/8W	
R207	1-216-254-00	CARBON MELF	220K	2% 1/8W	
R208	1-260-018-11	CARBON MELF	68K	2% 1/8W	
R209	1-260-012-11	CARBON MELF	22K	2% 1/8W	
R211	1-260-008-11	CARBON MELF	10K	2% 1/8W	
R212	1-260-008-11	CARBON MELF	10K	2% 1/8W	

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Ref. No.	Part No.	Description				Remark
⚠R220	1-217-469-00	RES, FUSE	1	5%	1W	F
⚠R221	1-217-469-00	RES, FUSE	1	5%	1W	F
R301	1-259-983-11	CARBON MELF	100	2%	1/8W	
R302	1-260-017-11	CARBON MELF	56K	2%	1/8W	
R303	1-259-991-11	CARBON MELF	470	2%	1/8W	
R304	1-259-987-11	CARBON MELF	220	2%	1/8W	
R305	1-259-987-11	CARBON MELF	220	2%	1/8W	
R306	1-249-218-11	CARBON	2.2K	5%	1/3W	
R307	1-260-002-11	CARBON MELF	3.3K	2%	1/8W	
R308	1-260-017-11	CARBON MELF	56K	2%	1/8W	
R309	1-260-004-11	CARBON MELF	4.7K	2%	1/8W	
R310	1-259-999-11	CARBON MELF	2.2K	2%	1/8W	
R311	1-260-020-11	CARBON MELF	100K	2%	1/8W	
R312	1-260-028-11	CARBON MELF	470K	5%	1/8W	
R313	1-259-987-11	CARBON MELF	220	2%	1/8W	
R314	1-260-001-11	CARBON MELF	2.7K	2%	1/8W	
R315	1-259-994-11	CARBON MELF	820	2%	1/8W	
R316	1-259-983-11	CARBON MELF	100	2%	1/8W	
R317	1-249-493-11	CARBON	56K	5%	1/3W	
⚠R318	1-212-982-00	FUSIBLE	100	5%	1/2W	F
⚠R319	1-212-982-00	FUSIBLE	100	5%	1/2W	F
⚠R320	1-212-982-00	FUSIBLE	100	5%	1/2W	F
⚠R321	1-212-982-00	FUSIBLE	100	5%	1/2W	F
R322	1-234-145-11	ENCAPSULATED COMPONENT				
R323	1-234-145-11	ENCAPSULATED COMPONENT				
R324	1-259-997-11	CARBON MELF	1.5K	2%	1/8W	
R325	1-260-004-11	CARBON MELF	4.7K	2%	1/8W	
R326	1-259-983-11	CARBON MELF	100	2%	1/8W	
R327	1-259-988-11	CARBON MELF	270	2%	1/8W	
R328	1-260-011-11	CARBON MELF	18K	2%	1/8W	
⚠R329	1-212-958-00	FUSIBLE	10	5%	1/2W	F
R330	1-260-004-11	CARBON MELF	4.7K	2%	1/8W	
R331	1-259-995-11	CARBON MELF	1K	2%	1/8W	
R332	1-259-920-11	CARBON MELF	620	2%	1/8W	
R333	1-260-017-11	CARBON MELF	56K	2%	1/8W	
R401	1-259-983-11	CARBON MELF	100	2%	1/8W	
R402	1-260-017-11	CARBON MELF	56K	2%	1/8W	
R403	1-259-991-11	CARBON MELF	470	2%	1/8W	
R404	1-259-987-11	CARBON MELF	220	2%	1/8W	
R405	1-259-987-11	CARBON MELF	220	2%	1/8W	
R406	1-249-218-11	CARBON	2.2K	5%	1/3W	
R407	1-260-002-11	CARBON MELF	3.3K	2%	1/8W	
R408	1-260-017-11	CARBON MELF	56K	2%	1/8W	
R409	1-260-004-11	CARBON MELF	4.7K	2%	1/8W	
R410	1-259-999-11	CARBON MELF	2.2K	2%	1/8W	
R411	1-260-020-11	CARBON MELF	100K	2%	1/8W	
R412	1-260-028-11	CARBON MELF	470K	5%	1/8W	
R413	1-259-987-11	CARBON MELF	220	2%	1/8W	
R414	1-260-001-11	CARBON MELF	2.7K	2%	1/8W	
R415	1-259-994-11	CARBON MELF	820	2%	1/8W	
R416	1-259-983-11	CARBON MELF	100	2%	1/8W	
R417	1-249-493-11	CARBON	56K	5%	1/3W	
⚠R418	1-212-982-00	FUSIBLE	100	5%	1/2W	F
⚠R419	1-212-982-00	FUSIBLE	100	5%	1/2W	F
⚠R420	1-212-982-00	FUSIBLE	100	5%	1/2W	F
⚠R421	1-212-982-00	FUSIBLE	100	5%	1/2W	F
R422	1-234-145-11	ENCAPSULATED COMPONENT				

Ref. No.	Part No.	Description				Remark
R423	1-234-145-11	ENCAPSULATED COMPONENT				
R424	1-259-997-11	CARBON MELF	1.5K	2%	1/8W	
R425	1-260-004-11	CARBON MELF	4.7K	2%	1/8W	
R426	1-259-983-11	CARBON MELF	100	2%	1/8W	
R427	1-259-988-11	CARBON MELF	270	2%	1/8W	
R428	1-260-011-11	CARBON MELF	18K	2%	1/8W	
⚠R429	1-212-958-00	FUSIBLE	10	5%	1/2W	F
R430	1-260-004-11	CARBON MELF	4.7K	2%	1/8W	
R431	1-259-995-11	CARBON MELF	1K	2%	1/8W	
R432	1-259-920-11	CARBON MELF	620	2%	1/8W	
R433	1-260-017-11	CARBON MELF	56K	2%	1/8W	
R501	1-259-983-11	CARBON MELF	100	2%	1/8W	
R502	1-260-017-11	CARBON MELF	56K	2%	1/8W	
R503	1-259-991-11	CARBON MELF	470	2%	1/8W	
R504	1-259-987-11	CARBON MELF	220	2%	1/8W	
R505	1-259-987-11	CARBON MELF	220	2%	1/8W	
R506	1-249-218-11	CARBON	2.2K	5%	1/3W	
R507	1-260-002-11	CARBON MELF	3.3K	2%	1/8W	
R508	1-260-017-11	CARBON MELF	56K	2%	1/8W	
R509	1-260-004-11	CARBON MELF	4.7K	2%	1/8W	
R510	1-259-999-11	CARBON MELF	2.2K	2%	1/8W	
R511	1-260-020-11	CARBON MELF	100K	2%	1/8W	
R512	1-260-028-11	CARBON MELF	470K	5%	1/8W	
R513	1-259-987-11	CARBON MELF	220	2%	1/8W	
R514	1-260-001-11	CARBON MELF	2.7K	2%	1/8W	
R515	1-259-994-11	CARBON MELF	820	2%	1/8W	
R516	1-259-983-11	CARBON MELF	100	2%	1/8W	
R517	1-249-493-11	CARBON	56K	5%	1/3W	
⚠R518	1-212-982-00	FUSIBLE	100	5%	1/2W	F
⚠R519	1-212-982-00	FUSIBLE	100	5%	1/2W	F
⚠R520	1-212-982-00	FUSIBLE	100	5%	1/2W	F
⚠R521	1-212-982-00	FUSIBLE	100	5%	1/2W	F
R522	1-234-145-11	ENCAPSULATED COMPONENT				
R523	1-234-145-11	ENCAPSULATED COMPONENT				
R524	1-259-997-11	CARBON MELF	1.5K	2%	1/8W	
R525	1-260-004-11	CARBON MELF	4.7K	2%	1/8W	
R526	1-259-983-11	CARBON MELF	100	2%	1/8W	
R527	1-259-988-11	CARBON MELF	270	2%	1/8W	
R528	1-260-011-11	CARBON MELF	18K	2%	1/8W	
⚠R529	1-212-958-00	FUSIBLE	10	5%	1/2W	F
R530	1-260-004-11	CARBON MELF	4.7K	2%	1/8W	
R531	1-259-995-11	CARBON MELF	1K	2%	1/8W	
R532	1-259-920-11	CARBON MELF	620	2%	1/8W	
R533	1-260-017-11	CARBON MELF	56K	2%	1/8W	
R601	1-259-983-11	CARBON MELF	100	2%	1/8W	
R602	1-260-017-11	CARBON MELF	56K	2%	1/8W	
R603	1-259-991-11	CARBON MELF	470	2%	1/8W	
R604	1-259-987-11	CARBON MELF	220	2%	1/8W	
R605	1-259-987-11	CARBON MELF	220	2%	1/8W	
R606	1-249-218-11	CARBON	2.2K	5%	1/3W	
R607	1-260-002-11	CARBON MELF	3.3K	2%	1/8W	
R608	1-260-017-11	CARBON MELF	56K	2%	1/8W	
R609	1-260-004-11	CARBON MELF	4.7K	2%	1/8W	
R610	1-259-999-11	CARBON MELF	2.2K	2%	1/8W	
R611	1-260-020-11	CARBON MELF	100K	2%	1/8W	
R612	1-260-028-11	CARBON MELF	470K	5%	1/8W	
R613	1-259-987-11	CARBON MELF	220	2%	1/8W	
R614	1-260-001-11	CARBON MELF	2.7K	2%	1/8W	

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MAIN PS

Ref. No.	Part No.	Description			Remark
R615	1-259-994-11	CARBON MELF	820	2%	1/8W
R616	1-259-983-11	CARBON MELF	100	2%	1/8W
R617	1-249-493-11	CARBON	56K	5%	1/3W
⚠R618	1-212-982-00	FUSIBLE	100	5%	1/2W F
⚠R619	1-212-982-00	FUSIBLE	100	5%	1/2W F
⚠R620	1-212-982-00	FUSIBLE	100	5%	1/2W F
⚠R621	1-212-982-00	FUSIBLE	100	5%	1/2W F
R622	1-234-145-11	ENCAPSULATED COMPONENT			
R623	1-234-145-11	ENCAPSULATED COMPONENT			
R624	1-259-997-11	CARBON MELF	1.5K	2%	1/8W
R625	1-260-004-11	CARBON MELF	4.7K	2%	1/8W
R626	1-259-983-11	CARBON MELF	100	2%	1/8W
R627	1-259-988-11	CARBON MELF	270	2%	1/8W
R628	1-260-011-11	CARBON MELF	18K	2%	1/8W
⚠R629	1-212-958-00	FUSIBLE	10	5%	1/2W F
R630	1-260-004-11	CARBON MELF	4.7K	2%	1/8W
R631	1-259-995-11	CARBON MELF	1K	2%	1/8W
R632	1-259-920-11	CARBON MELF	620	2%	1/8W
R633	1-260-017-11	CARBON MELF	56K	2%	1/8W
R701	1-259-983-11	CARBON MELF	100	2%	1/8W
R702	1-260-017-11	CARBON MELF	56K	2%	1/8W
R703	1-259-991-11	CARBON MELF	470	2%	1/8W
R704	1-259-987-11	CARBON MELF	220	2%	1/8W
R705	1-259-987-11	CARBON MELF	220	2%	1/8W
R706	1-249-218-11	CARBON	2.2K	5%	1/3W
R707	1-260-002-11	CARBON MELF	3.3K	2%	1/8W
R708	1-260-017-11	CARBON MELF	56K	2%	1/8W
R709	1-260-004-11	CARBON MELF	4.7K	2%	1/8W
R710	1-259-999-11	CARBON MELF	2.2K	2%	1/8W
R711	1-260-020-11	CARBON MELF	100K	2%	1/8W
R712	1-260-028-11	CARBON MELF	470K	5%	1/8W
R713	1-259-987-11	CARBON MELF	220	2%	1/8W
R714	1-260-001-11	CARBON MELF	2.7K	2%	1/8W
R715	1-259-994-11	CARBON MELF	820	2%	1/8W
R716	1-259-983-11	CARBON MELF	100	2%	1/8W
R717	1-249-493-11	CARBON	56K	5%	1/3W
⚠R718	1-212-982-00	FUSIBLE	100	5%	1/2W F
⚠R719	1-212-982-00	FUSIBLE	100	5%	1/2W F
⚠R720	1-212-982-00	FUSIBLE	100	5%	1/2W F
⚠R721	1-212-982-00	FUSIBLE	100	5%	1/2W F
R722	1-234-145-11	ENCAPSULATED COMPONENT			
R723	1-234-145-11	ENCAPSULATED COMPONENT			
R724	1-259-997-11	CARBON MELF	1.5K	2%	1/8W
R725	1-260-004-11	CARBON MELF	4.7K	2%	1/8W
R726	1-259-983-11	CARBON MELF	100	2%	1/8W
R727	1-259-988-11	CARBON MELF	270	2%	1/8W
R728	1-260-011-11	CARBON MELF	18K	2%	1/8W
⚠R729	1-212-958-00	FUSIBLE	10	5%	1/2W F
R730	1-260-004-11	CARBON MELF	4.7K	2%	1/8W
R731	1-259-995-11	CARBON MELF	1K	2%	1/8W
R732	1-259-920-11	CARBON MELF	620	2%	1/8W
R733	1-260-017-11	CARBON MELF	56K	2%	1/8W
		< VARIABLE RESISTOR >			
RV301	1-237-456-11	RES, ADJ, CARBON 1K			
RV401	1-237-456-11	RES, ADJ, CARBON 1K			
RV501	1-237-456-11	RES, ADJ, CARBON 1K			
RV601	1-237-456-11	RES, ADJ, CARBON 1K			
RV701	1-237-456-11	RES, ADJ, CARBON 1K			
		< RELAY >			
RY1	1-755-062-11	RELAY			
RY2	1-755-062-11	RELAY			
RY3	1-755-062-11	RELAY			
RY4	1-755-062-11	RELAY			
RY5	1-755-062-11	RELAY			
RY6	1-755-062-11	RELAY			
RY7	1-755-062-11	RELAY			
RY10	1-755-062-11	RELAY			
RY16	1-755-062-11	RELAY			
RY17	1-755-062-11	RELAY			
RY19	1-755-062-11	RELAY			
		< SWITCH >			
S101	1-771-471-11	SWITCH, SLIDE (OPERATION)			
**********					
*	A-4414-845-A	PS BOARD, COMPLETE (US, CND)			
*	A-4414-847-A	PS BOARD, COMPLETE (EXCEPT US, CND)			
		**********			
	2-259-121-01	SCREW, TR			
	4-902-345-01	HEAT SINK			
	4-974-510-01	SCREW (+BV 3X8 B)			
		< CAPACITOR >			
C807	1-119-846-11	ELECT	1uF	20%	100V
C808	1-119-815-21	ELECT	2200uF	20%	35V
C809	1-119-782-11	ELECT	1000uF	20%	10V
C810	1-125-927-11	ELECT	18000uF	20%	63V
C811	1-125-927-11	ELECT	18000uF	20%	63V
C812	1-136-880-11	FILM	2.2uF	10%	160V
C813	1-119-841-11	ELECT	1000uF	20%	63V
C814	1-119-841-11	ELECT	1000uF	20%	63V
C816	1-119-841-11	ELECT	1000uF	20%	63V
C817	1-119-804-21	ELECT	1000uF	20%	25V
C818	1-119-841-11	ELECT	1000uF	20%	63V
		< CONNECTOR >			
CN804	1-691-766-31	PLUG (MICRO CONNECTOR) 4P			
CN805	1-691-766-11	PLUG (MICRO CONNECTOR) 4P			
CN806	1-691-767-11	PLUG (MICRO CONNECTOR) 5P			
CN807	1-564-241-00	PIN, CONNECTOR 4P			
CN808	1-564-104-00	PIN, CONNECTOR 3P			
CN811	1-564-320-00	PIN, CONNECTOR (B2P-VH) 2P			
CN861	1-691-765-41	PLUG (MICRO CONNECTOR) 3P			
		< DIODE >			
D801	8-719-302-38	DIODE RBV-602-01			
D805	8-719-200-82	DIODE 11ES2			
D806	8-719-200-82	DIODE 11ES2			
D807	8-719-200-82	DIODE 11ES2			
D808	8-719-200-82	DIODE 11ES2			
D809	8-719-200-82	DIODE 11ES2			
D810	8-719-302-38	DIODE RBV-602-01			

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Ref. No.	Part No.	Description			Remark
D811	8-719-929-15	DIODE RD9.1EB3T			
		< IC >			
IC801	8-759-604-35	IC M5F78M05L			
IC802	8-759-605-03	IC M5F78M24			
		< RESISTOR >			
⚠R816	1-212-958-00	FUSIBLE	10	5%	1/2W F
⚠R817	1-212-958-00	FUSIBLE	10	5%	1/2W F
⚠R818	1-212-958-00	FUSIBLE	10	5%	1/2W F
R819	1-260-008-11	CARBON MELF	10K	2%	1/8W
R822	1-260-008-11	CARBON MELF	10K	2%	1/8W
R823	1-260-008-11	CARBON MELF	10K	2%	1/8W
R824	1-260-008-11	CARBON MELF	10K	2%	1/8W
**********					
*	1-671-975-11	RY BOARD			
		*********			
		< CAPACITOR >			
C850	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
		< CONNECTOR >			
* CN809	1-564-242-00	PIN, CONNECTOR 5P			
CN853	1-691-765-11	PLUG (MICRO CONNECTOR) 3P			
		< DIODE >			
D850	8-719-801-78	DIODE 1SS184			
		< RELAY >			
RY851	1-755-235-11	RELAY			
RY852	1-755-235-11	RELAY			
**********					
*	A-4414-832-A	SP BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C802	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C803	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C804	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C820	1-164-161-11	CERAMIC CHIP	2200PF	10%	100V
C825	1-164-161-11	CERAMIC CHIP	2200PF	10%	100V
C826	1-164-161-11	CERAMIC CHIP	2200PF	10%	100V
C829	1-164-161-11	CERAMIC CHIP	2200PF	10%	100V
		< CONNECTOR >			
CN802	1-691-765-21	PLUG (MICRO CONNECTOR) 3P			
CN803	1-691-765-31	PLUG (MICRO CONNECTOR) 3P			
		< DIODE >			
D802	8-719-801-78	DIODE 1SS184			
D803	8-719-801-78	DIODE 1SS184			
D804	8-719-801-78	DIODE 1SS184			
		< COIL >			
L801	1-411-766-11	COIL, AIR-CORE			
L802	1-411-766-11	COIL, AIR-CORE			
L803	1-411-766-11	COIL, AIR-CORE			
L804	1-411-766-11	COIL, AIR-CORE			
L805	1-411-766-11	COIL, AIR-CORE			
		< TRANSISTOR >			
Q801	8-729-201-53	TRANSISTOR 2SA1015-GR			
Q803	8-729-281-54	TRANSISTOR 2SC1815-BL			
Q804	8-729-281-54	TRANSISTOR 2SC1815-BL			
Q805	8-729-281-54	TRANSISTOR 2SC1815-BL			
		< RESISTOR >			
R801	1-249-162-11	CARBON	10	5%	1/3W
R802	1-249-162-11	CARBON	10	5%	1/3W
R803	1-249-162-11	CARBON	10	5%	1/3W
R804	1-249-162-11	CARBON	10	5%	1/3W
R805	1-249-162-11	CARBON	10	5%	1/3W
R806	1-260-004-11	CARBON MELF	4.7K	2%	1/8W
R807	1-260-011-11	CARBON MELF	18K	2%	1/8W
R809	1-260-004-11	CARBON MELF	4.7K	2%	1/8W
R810	1-260-004-11	CARBON MELF	4.7K	2%	1/8W
R811	1-260-004-11	CARBON MELF	4.7K	2%	1/8W
R813	1-260-011-11	CARBON MELF	18K	2%	1/8W
R814	1-260-011-11	CARBON MELF	18K	2%	1/8W
R815	1-260-011-11	CARBON MELF	18K	2%	1/8W
		< RELAY >			
RY11	1-755-141-11	RELAY			
RY13	1-755-141-11	RELAY			
RY14	1-755-141-11	RELAY			
		< TERMINAL >			
TM801	1-694-447-11	TERMINAL BOARD (SP) (FRONT/REAR SPEAKERS, L)			
TM802	1-694-447-11	TERMINAL BOARD (SP) (FRONT/REAR SPEAKERS, R)			
TM805	1-694-447-11	TERMINAL BOARD (SP) (CENTER SPEAKER)			
**********					
*	1-670-769-11	SW BOARD			
		*********			
		< CONNECTOR >			
CN851	1-691-765-11	PLUG (MICRO CONNECTOR) 3P			
CN852	1-691-765-41	PLUG (MICRO CONNECTOR) 3P			
		< SWITCH >			
S801	1-771-472-11	SWITCH, SLIDE (SPEAKER IMPEDANCE)			
**********					
		MISCELLANEOUS			
		**********			
⚠CNJ801	1-559-479-11	CORD, POWER (US, CND)			
⚠CNJ801	1-575-953-11	CORD, POWER (EXCEPT US, CND)			
⚠T1	1-431-981-11	TRANSFORMER, POWER (US, CND)			
⚠T1	1-431-983-11	TRANSFORMER, POWER (EXCEPT US, CND)			
**********					

以阴影和⚠标志来识别的零部件在安全方面具有关键性。因此只能以规定号码的零部件来更换。

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
		**********	
		HARDWARE LIST	
		**********	
#1	7-682-547-04	SCREW +B 3X6	
#2	7-682-565-09	SCREW +B 4X16	
#3	7-682-248-09	SCREW +K 3X8	
#4	7-682-148-15	SCREW, TR	
#5	7-682-575-04	SCREW +P 5X10	
#6	7-621-775-10	SCREW +B 2.6X4	
#7	7-682-561-09	SCREW +P 4X8	
#8	7-682-547-09	SCREW +B 3X6	

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ACCESSORIES & PACKING MATERIALS
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	1-777-172-11	CORD, CONNECTION
	3-864-981-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH) (US, CND)
	3-864-981-21	MANUAL, INSTRUCTION (ENGLISH, FRENCH, GERMAN, SPANISH, DUTCH, SWEDISH, ITALIAN, PORTUGUESE) (EXCEPT US, CND)

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